

APPROVED	O. G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

CCA GCA ACC AAT GAT GCC CGT T-TAMRA-3'
CA GCA ACC AAT GAT GCC CGT T-TAMRA-3'

CCA GCA AGC ACT GAT GCC TGT T-TAMRA-3'
CA GCA AGC ACT GAT GCC TGT T-TAMRA-3'

Fig. 1A

Fluorescent Dyes

	<u>Absorbance Maxima</u>	<u>Emission Maxima</u>
Fluorescein	494nm	525nm
Tetrachloro fluorescein	521nm	536nm
TAMRA	565nm	580nm

Fig. 1B

Cleaved Fragments:

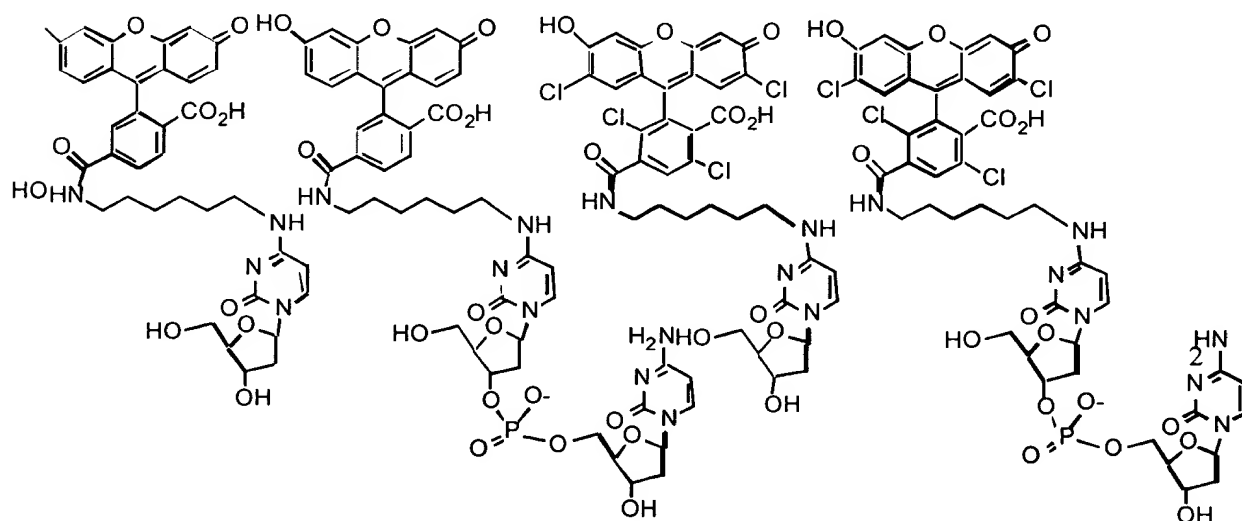


Fig. 1C

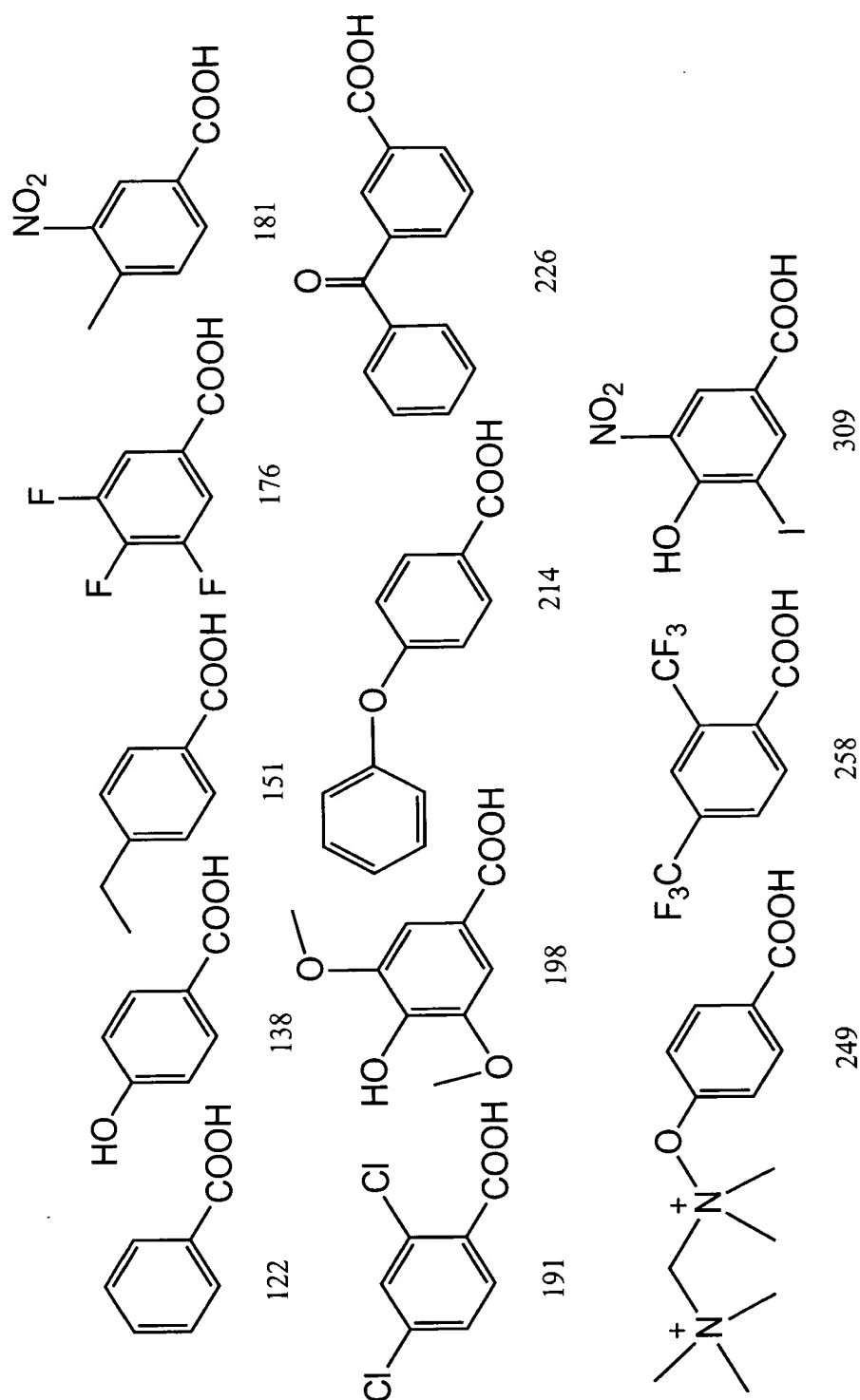


Fig. 2

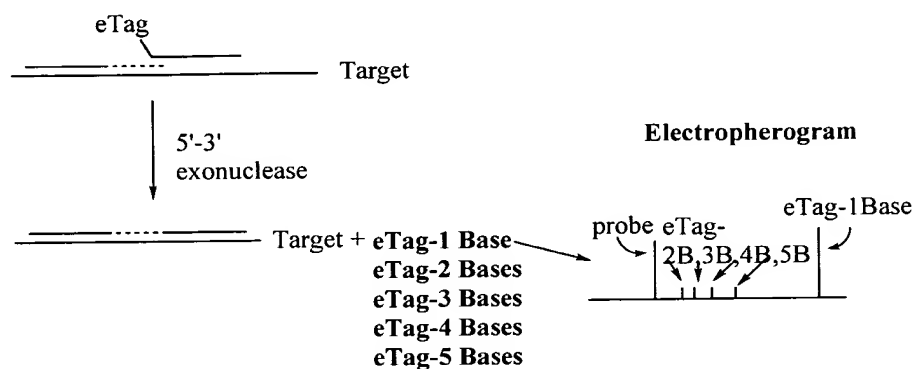


Fig. 3A

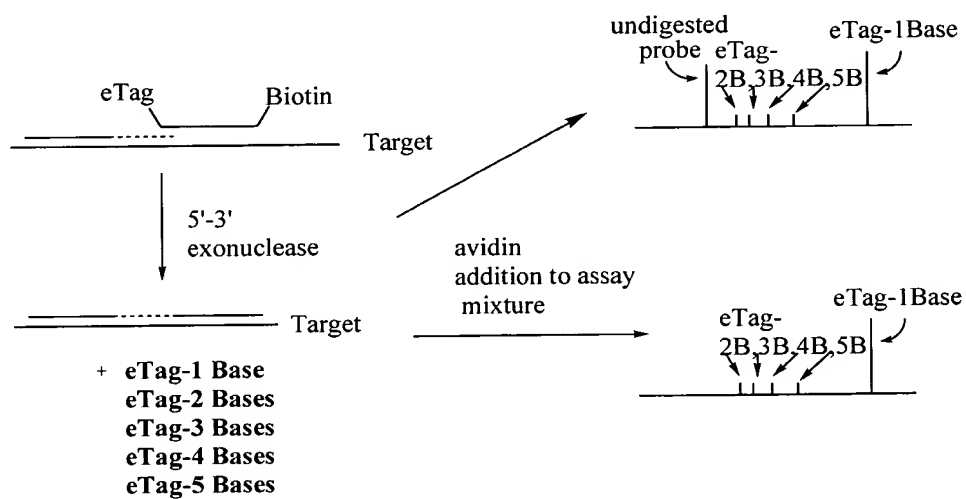


Fig. 3B

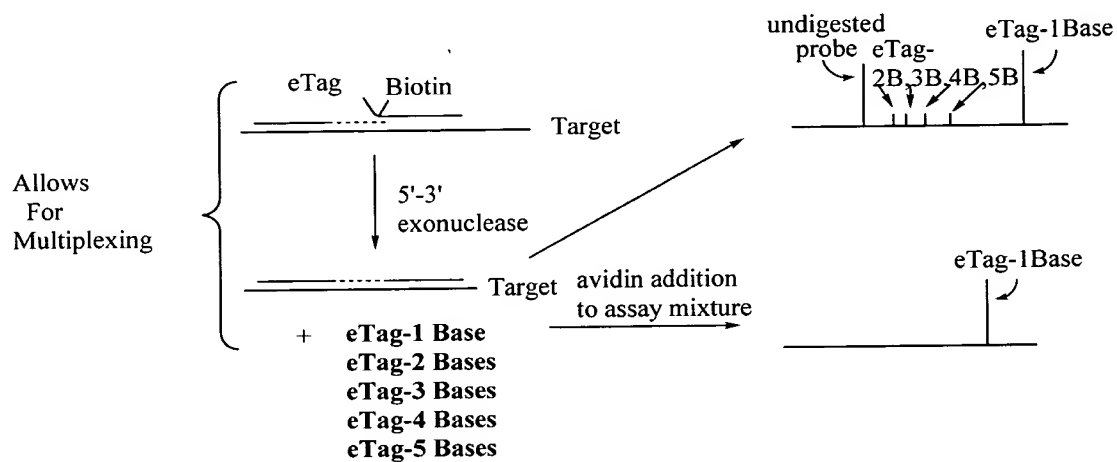


Fig. 3C

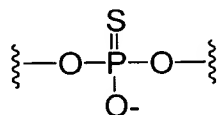


Fig. 3D

APPROVED	O.G. FIG.	
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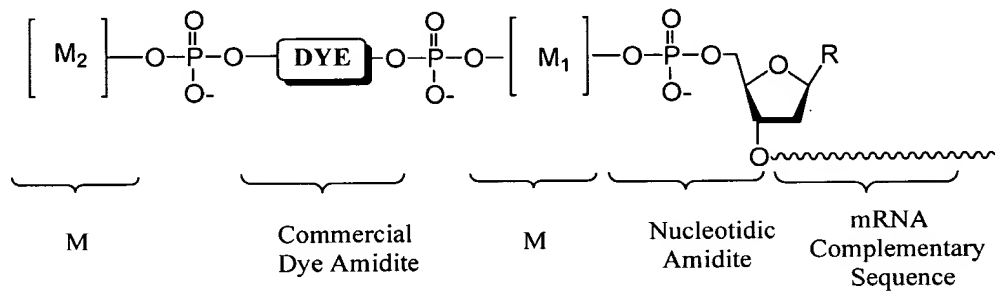


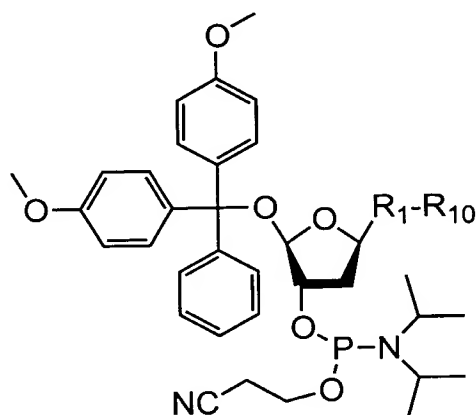
Fig. 4

<u>e-tag Reporter</u>	<u>Elution Time on CE, min</u>	<u>Mass</u>
	6.4	778
	7.1	925
	7.3	901
	7.7	994
	8.0	985
	9.25	961

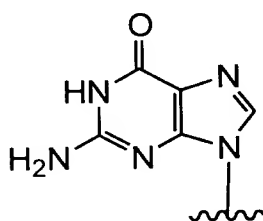
Fig. 5

e-tag Reporter	Charge	Elution Time, min
$\begin{array}{c} \text{O} \\ \parallel \\ \text{HN} \text{---} \text{C}_5 \text{---} \text{O} \text{---} \text{P} \text{---} \text{O} \text{---} \text{C}_3 \text{C}_3 \text{C}_3 \text{C}_3 \text{C}_3 \text{---} \text{dC} \\ \parallel \\ \text{O}^- \end{array}$	-8	12.1*
$\begin{array}{c} \text{O} \\ \parallel \\ \text{HN} \text{---} \text{C}_5 \text{---} \text{O} \text{---} \text{P} \text{---} \text{O} \text{---} \text{C}_6 \text{C}_6 \text{C}_6 \text{C}_6 \text{C}_6 \text{C}_6 \text{---} \text{dC} \\ \parallel \\ \text{O}^- \end{array}$	-9	12.7
$\begin{array}{c} \text{O} \\ \parallel \\ \text{HN} \text{---} \text{C}_5 \text{---} \text{O} \text{---} \text{P} \text{---} \text{O} \text{---} \text{C}_6 \text{C}_6 \text{C}_6 \text{C}_6 \text{C}_6 \text{---} \text{dC} \\ \parallel \\ \text{O}^- \end{array}$	-8	12.8
$\begin{array}{c} \text{O} \\ \parallel \\ \text{HN} \text{---} \text{C}_5 \text{---} \text{O} \text{---} \text{P} \text{---} \text{O} \text{---} \text{C}_6 \text{C}_6 \text{C}_6 \text{C}_6 \text{---} \text{dC} \\ \parallel \\ \text{O}^- \end{array}$	-7	13.1
$\begin{array}{c} \text{O} \\ \parallel \\ \text{HN} \text{---} \text{C}_5 \text{---} \text{O} \text{---} \text{P} \text{---} \text{O} \text{---} \text{C}_3 \text{C}_3 \text{C}_9 \text{---} \text{dC} \\ \parallel \\ \text{O}^- \end{array}$	-6	13.0
$\begin{array}{c} \text{O} \\ \parallel \\ \text{HN} \text{---} \text{C}_5 \text{---} \text{O} \text{---} \text{P} \text{---} \text{O} \text{---} \text{C}_6 \text{C}_6 \text{C}_6 \text{---} \text{dC} \\ \parallel \\ \text{O}^- \end{array}$	-6	13.4
$\begin{array}{c} \text{O} \\ \parallel \\ \text{HN} \text{---} \text{C}_5 \text{---} \text{O} \text{---} \text{P} \text{---} \text{O} \text{---} \text{C}_3 \text{C}_3 \text{---} \text{dC} \\ \parallel \\ \text{O}^- \end{array}$	-5	12.8*
$\begin{array}{c} \text{O} \\ \parallel \\ \text{HN} \text{---} \text{C}_5 \text{---} \text{O} \text{---} \text{P} \text{---} \text{O} \text{---} \text{C}_3 \text{C}_9 \text{---} \text{dC} \\ \parallel \\ \text{O}^- \end{array}$	-5	13.2*
$\begin{array}{c} \text{O} \\ \parallel \\ \text{HN} \text{---} \text{C}_5 \text{---} \text{O} \text{---} \text{P} \text{---} \text{O} \text{---} \text{C}_9 \text{C}_9 \text{---} \text{dC} \\ \parallel \\ \text{O}^- \end{array}$	-5	14.8
$\begin{array}{c} \text{O} \\ \parallel \\ \text{HN} \text{---} \text{C}_5 \text{---} \text{O} \text{---} \text{P} \text{---} \text{O} \text{---} \text{TTTdC} \\ \parallel \\ \text{O}^- \end{array}$	-6	17.3
$\begin{array}{c} \text{O} \\ \parallel \\ \text{HN} \text{---} \text{C}_5 \text{---} \text{O} \text{---} \text{P} \text{---} \text{O} \text{---} \text{TTdC} \\ \parallel \\ \text{O}^- \end{array}$	-5	17.0
$\begin{array}{c} \text{O} \\ \parallel \\ \text{HN} \text{---} \text{C}_5 \text{---} \text{O} \text{---} \text{P} \text{---} \text{O} \text{---} \text{C}_9 \text{---} \text{dT} \\ \parallel \\ \text{O}^- \end{array}$	-4	15.2*
$\begin{array}{c} \text{O} \\ \parallel \\ \text{HN} \text{---} \text{C}_5 \text{---} \text{O} \text{---} \text{P} \text{---} \text{O} \text{---} \text{TdC} \\ \parallel \\ \text{O}^- \end{array}$	-4	16.5

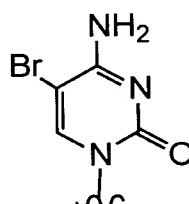
Fig. 6



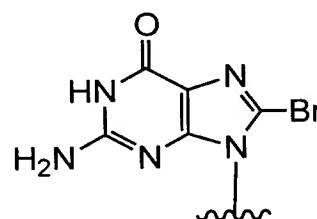
227



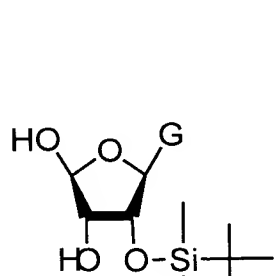
267



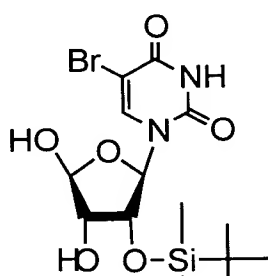
306



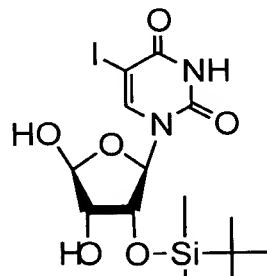
346



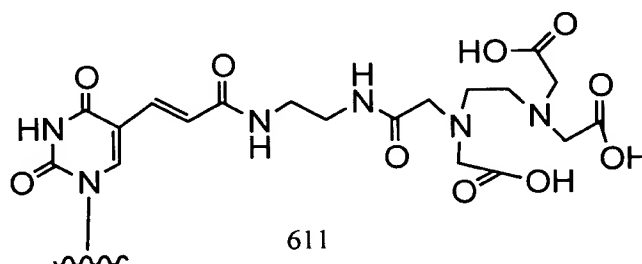
396



436



484



611

Fig. 7

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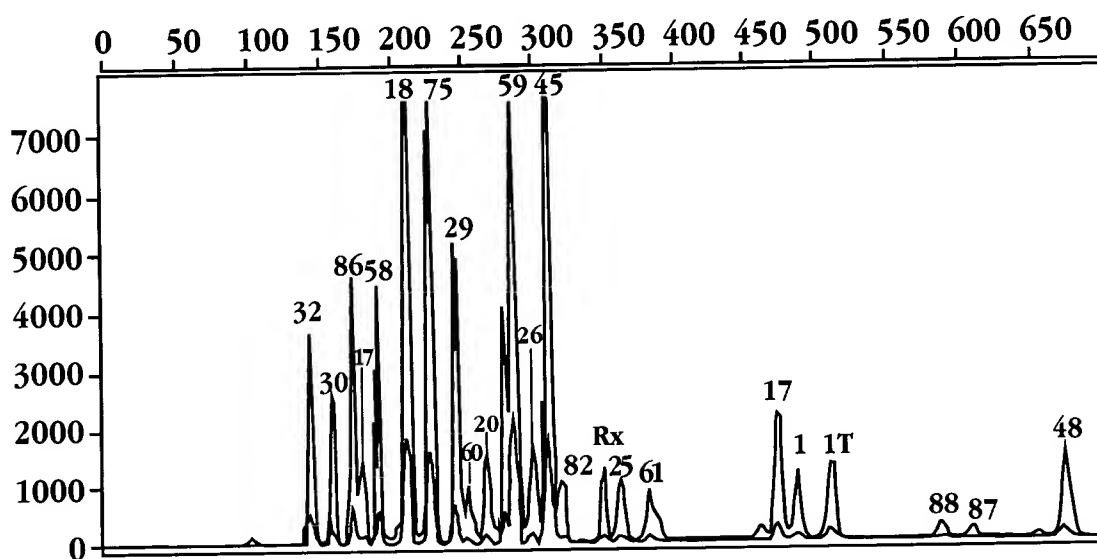


Fig. 8

APPROVED	O G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

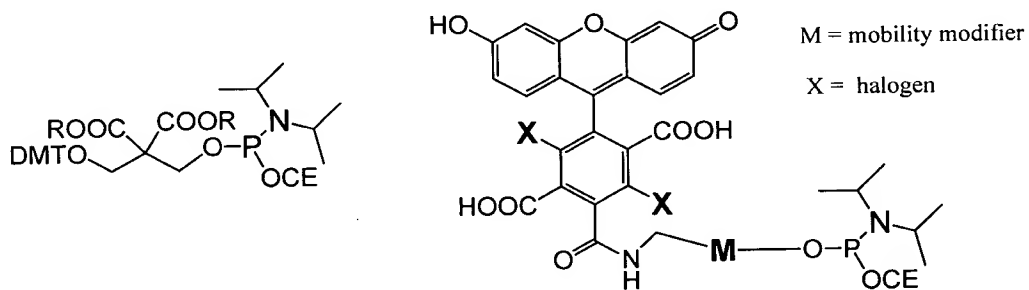


Fig. 9

APPROVED	O G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

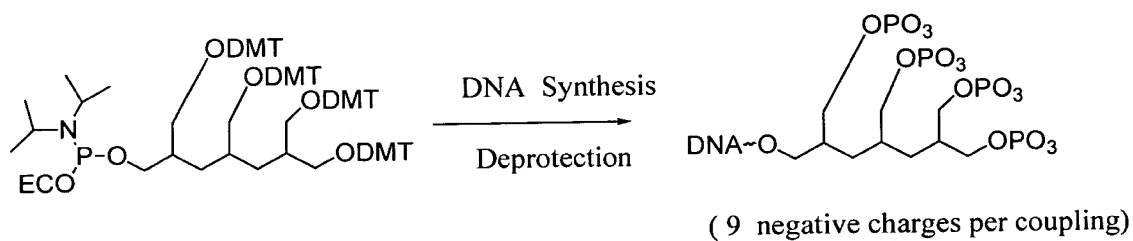


Fig. 10

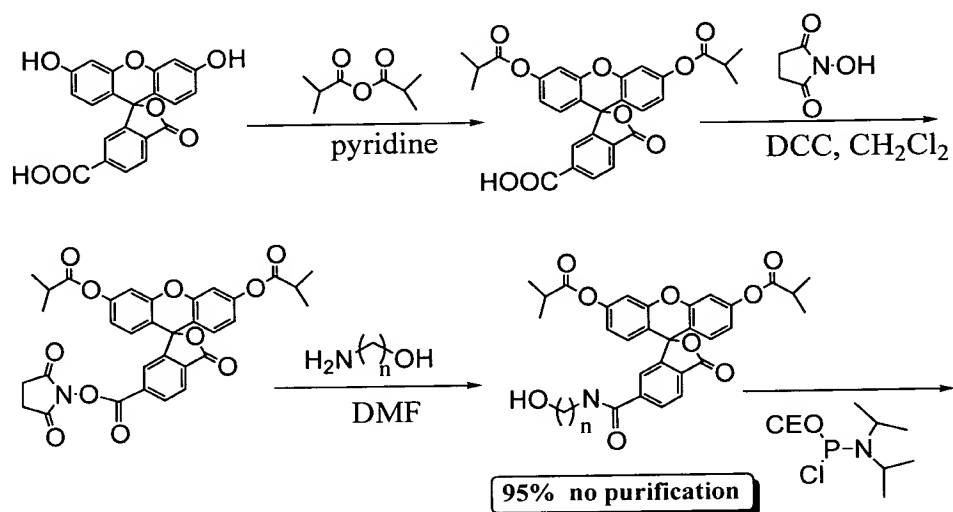


Fig. 11

APPROVED	O.G. FIG.
BY	CLASS SUBCLASS
DRAFTSMAN	

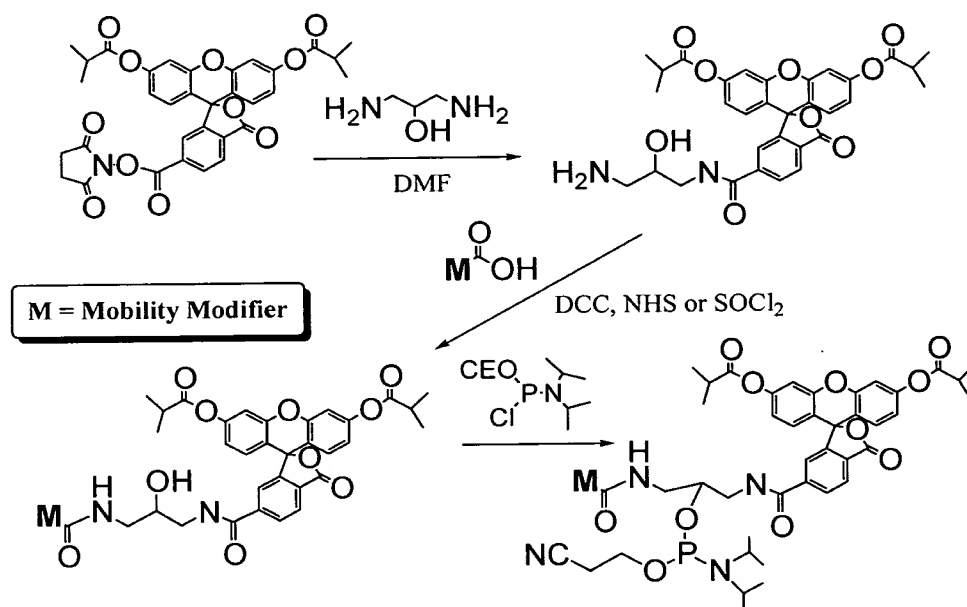


Fig. 12

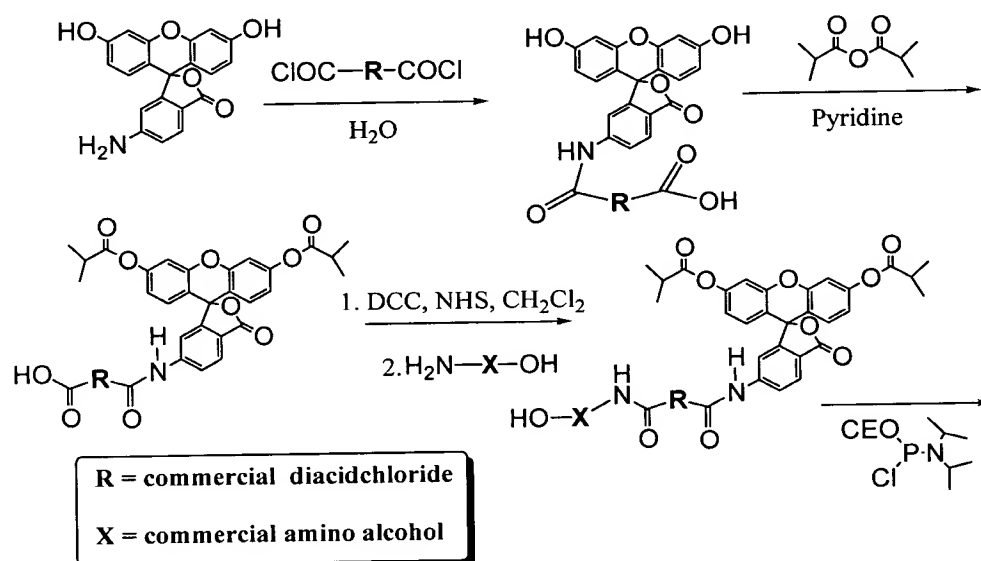


Fig. 13

APPROVED	CLASS		CLASS
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DRAFTSMAN			

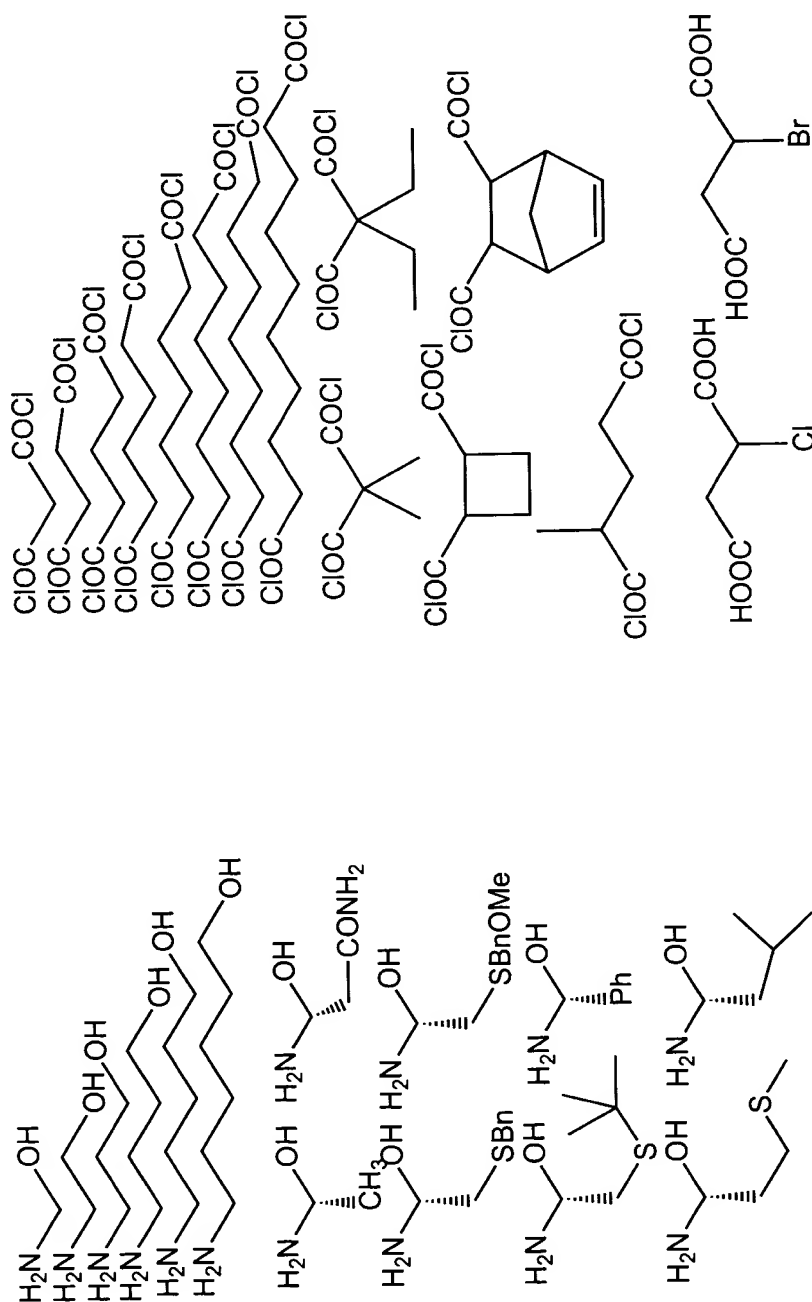


Fig. 14

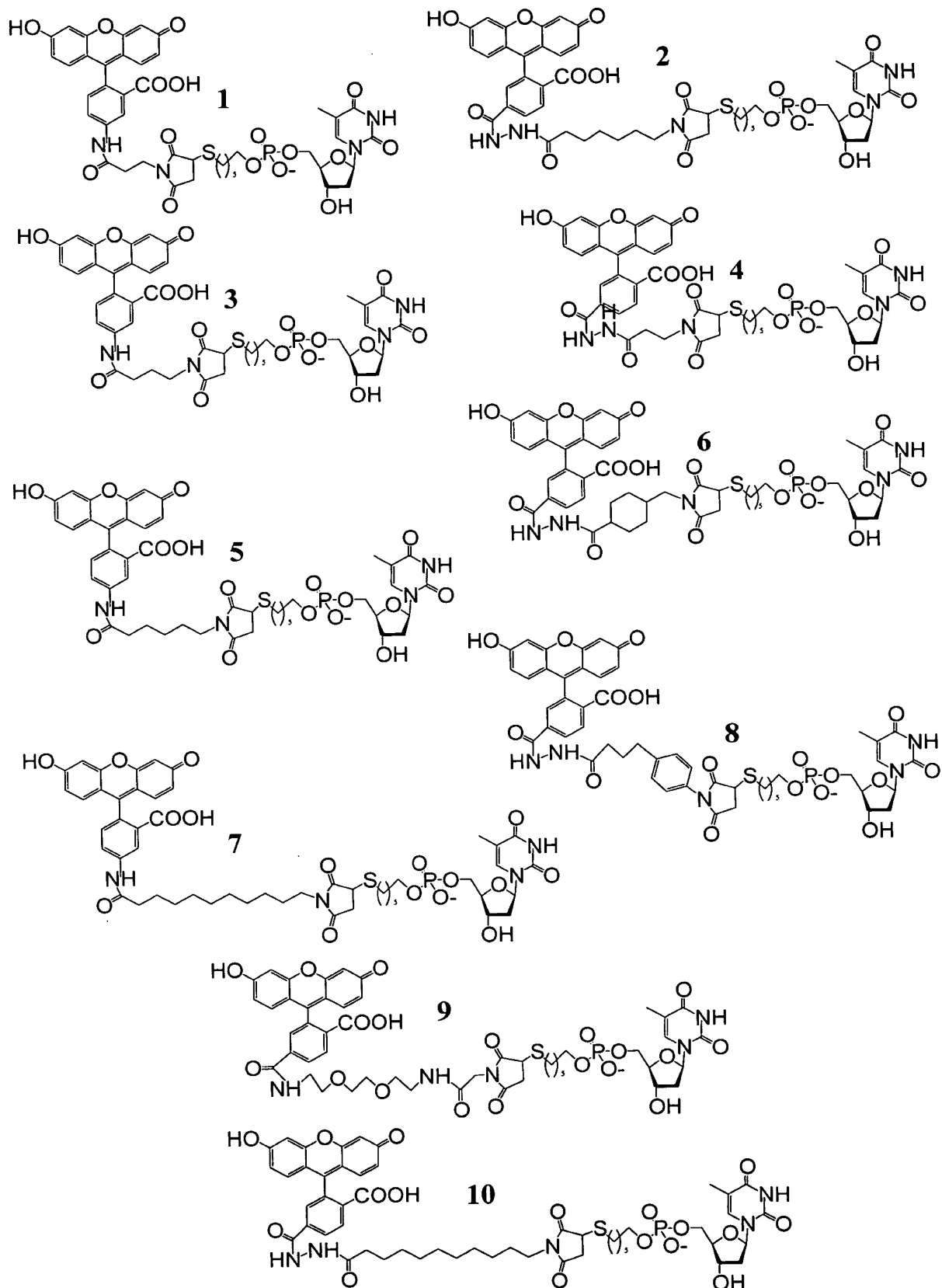


Fig. 15

APPROVED	O. G. FIG.	
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DRAFTSMAN		

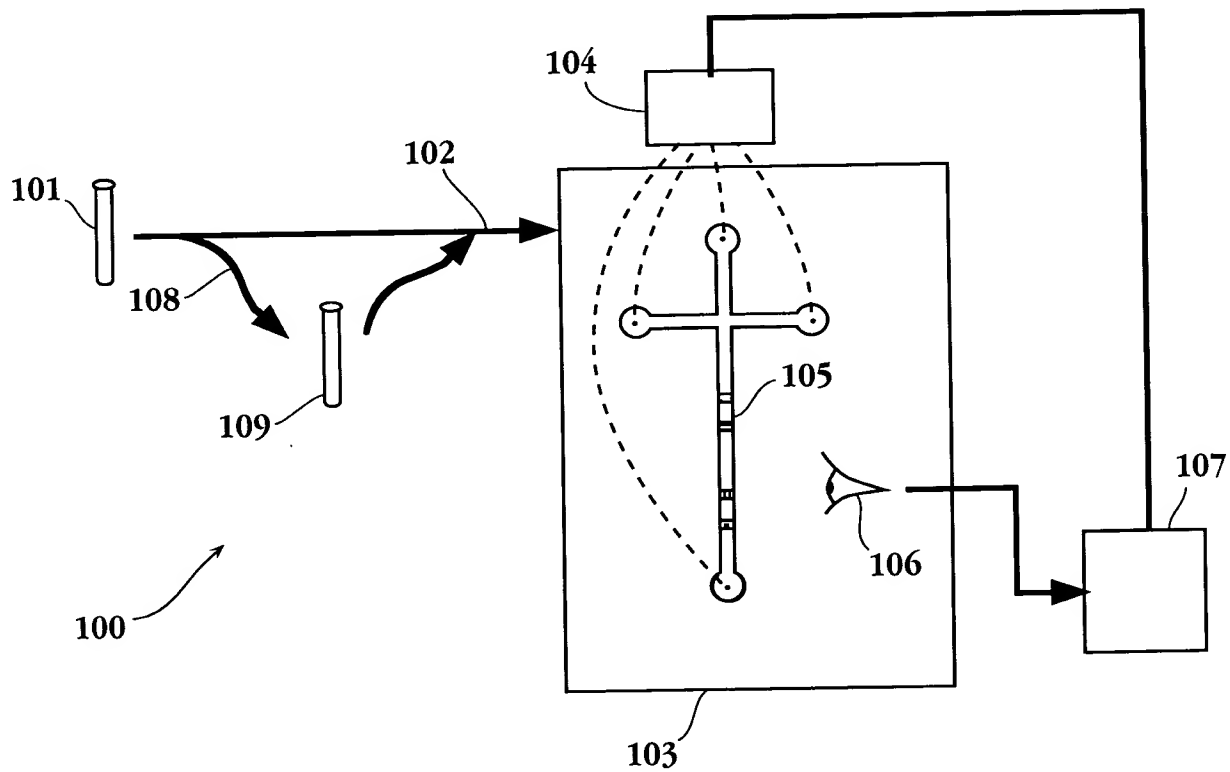
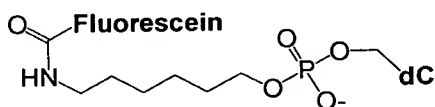
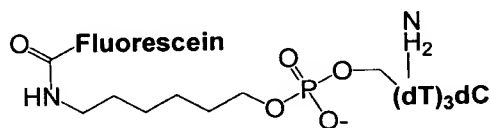


Fig. 16

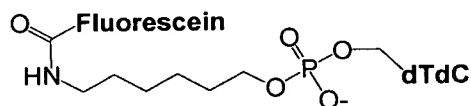
ACLA001



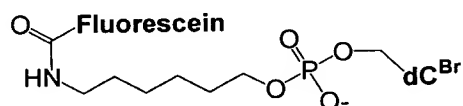
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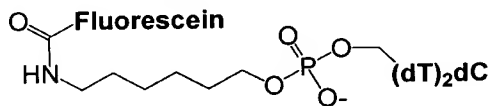
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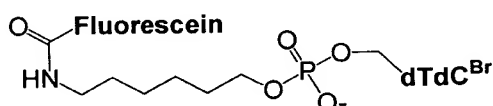
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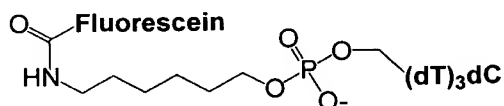
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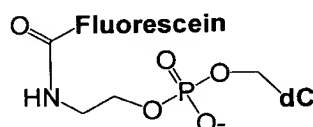
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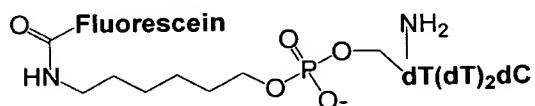
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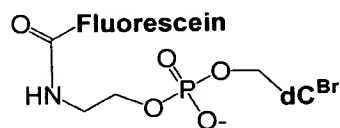
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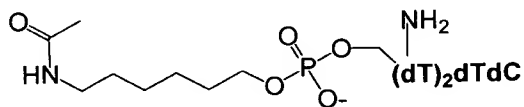
ACLA005



ACLA011



ACLA006



ACLA012

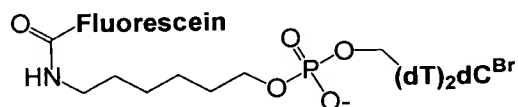


Fig. 17A

APPROVED	O. G. FIG.
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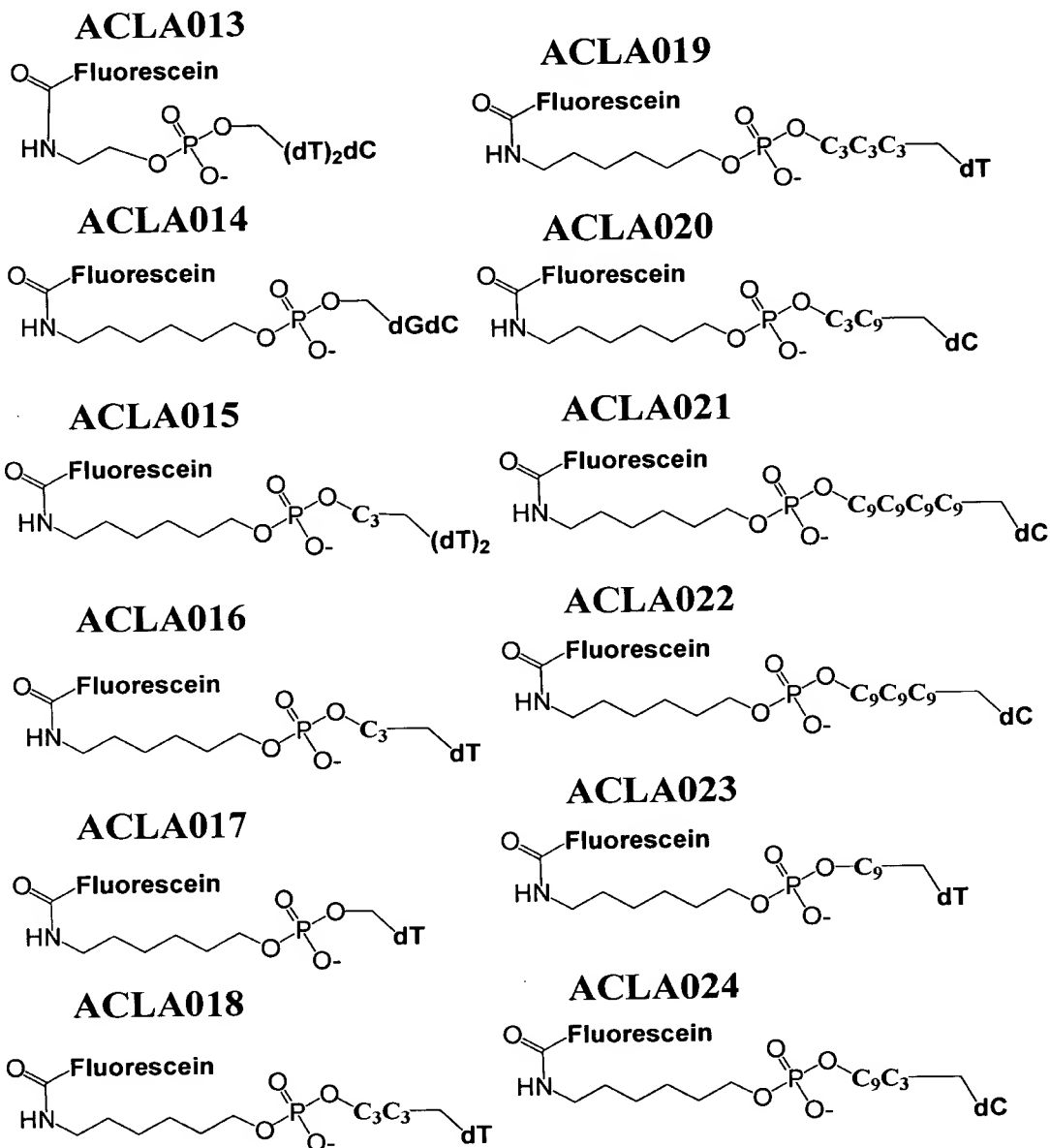


Fig. 17B

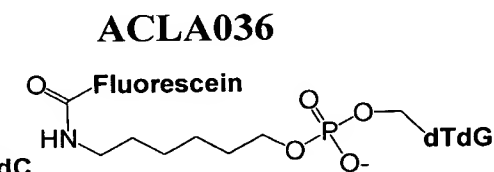
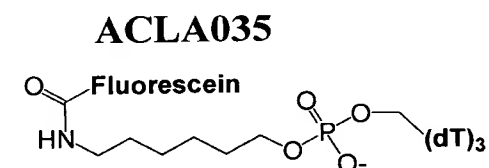
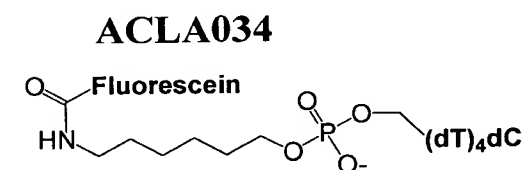
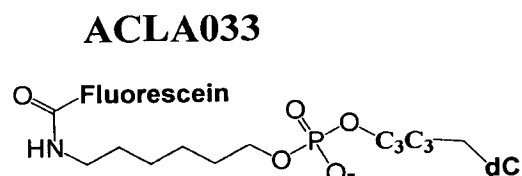
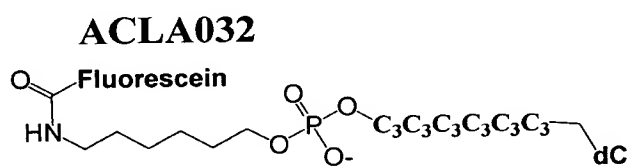
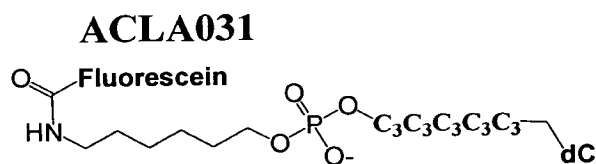
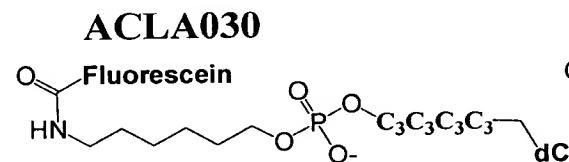
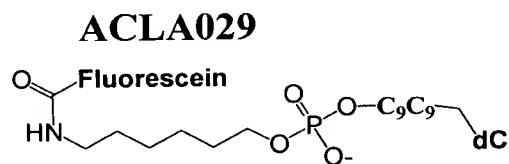
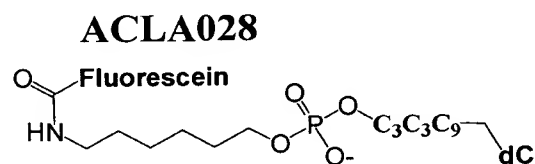
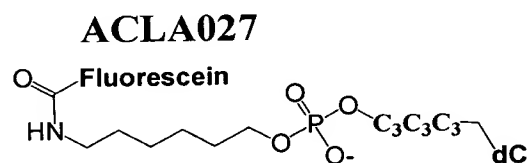
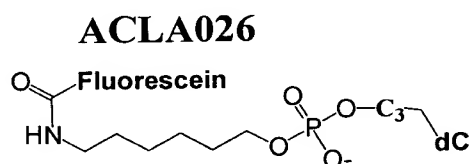
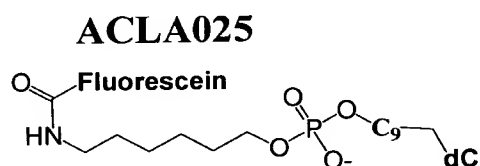
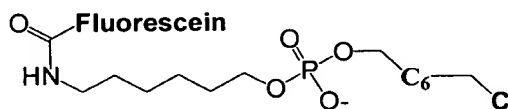
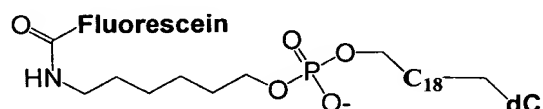


Fig. 17C

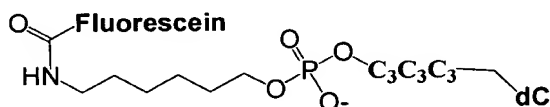
ACLA037



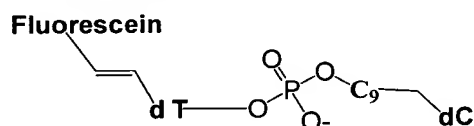
ACLA038



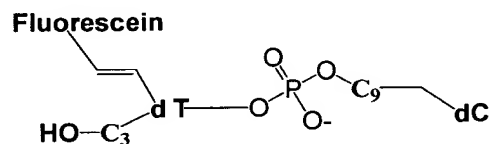
ACLA039



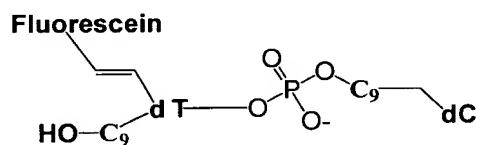
ACLA040



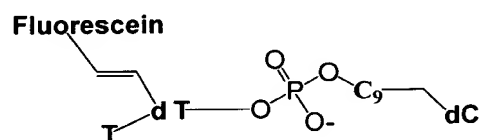
ACLA041



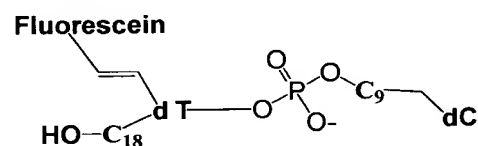
ACLA042



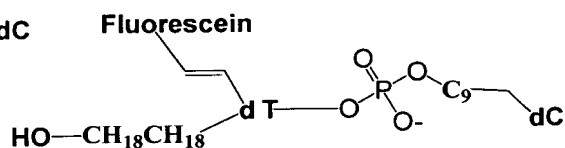
ACLA043



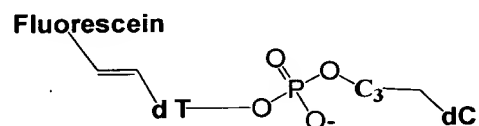
ACLA044



ACLA045



ACLA046



ACLA047

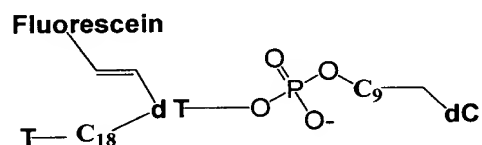


Fig. 17D

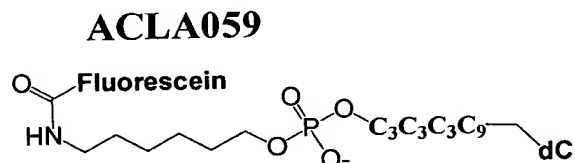
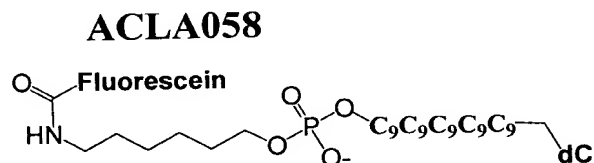
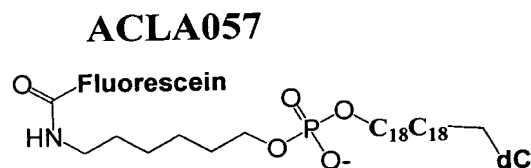
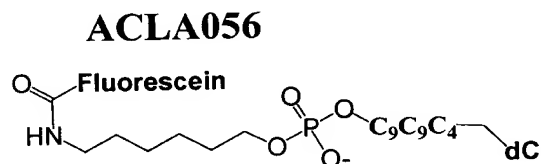
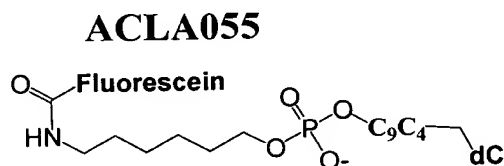
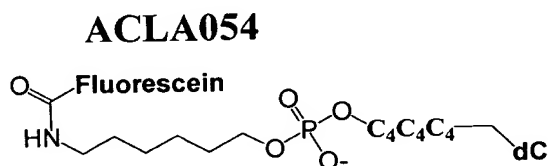
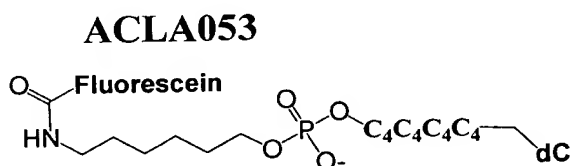
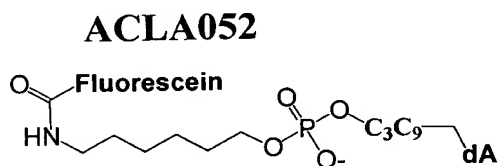
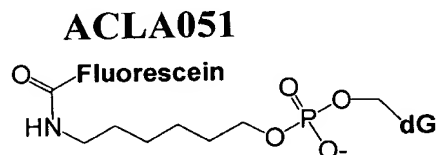
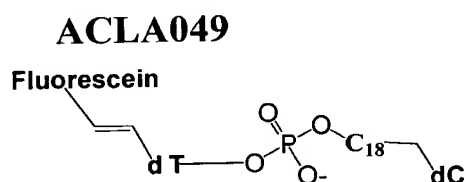
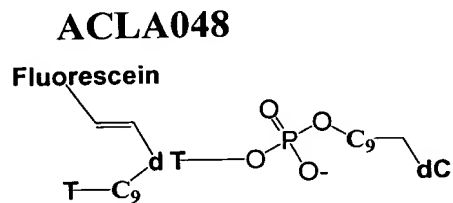
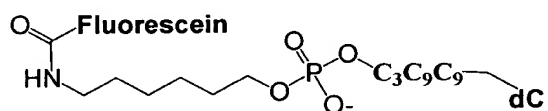


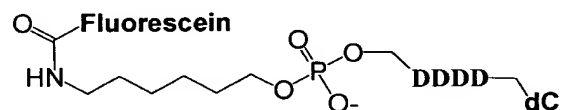
Fig. 17E

APPROVED	O G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

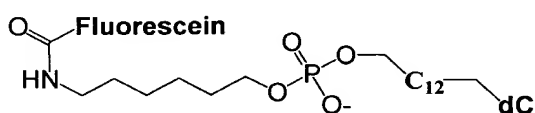
ACLA060



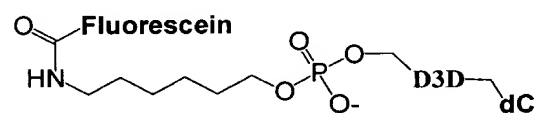
ACLA065



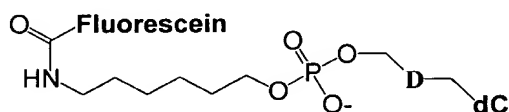
ACLA061



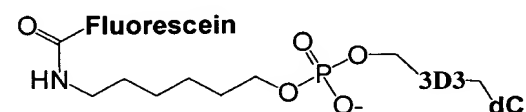
ACLA066



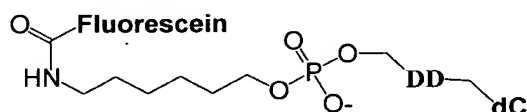
ACLA062



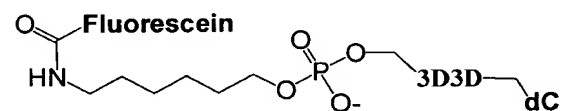
ACLA067



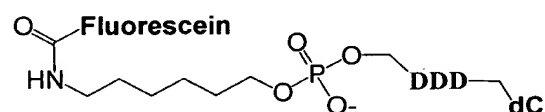
ACLA063



ACLA068



ACLA064



ACLA069

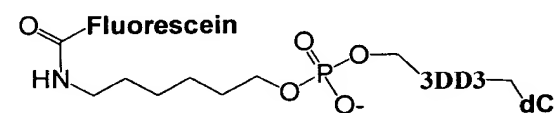
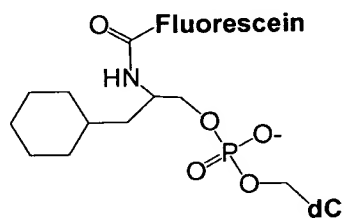
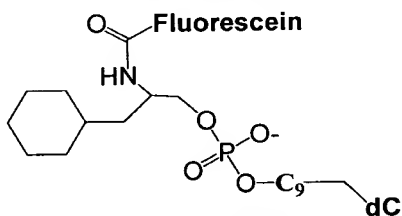


Fig. 17F

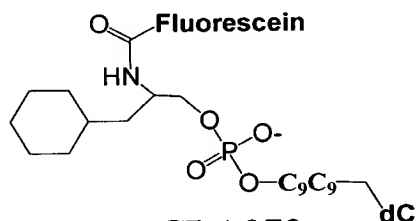
ACLA070



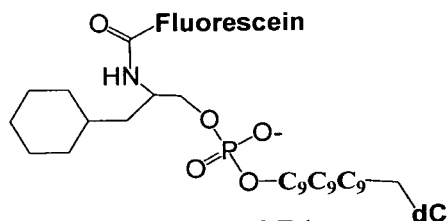
ACLA071



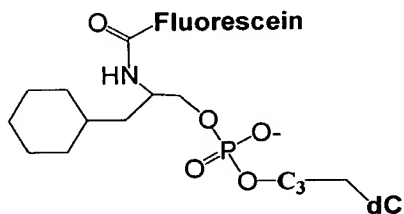
ACLA072



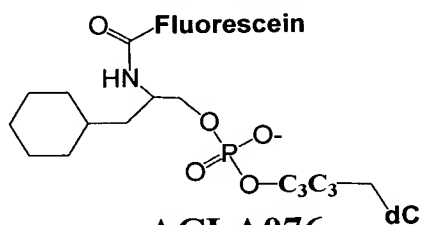
ACLA073



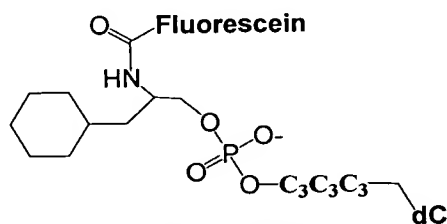
ACLA074



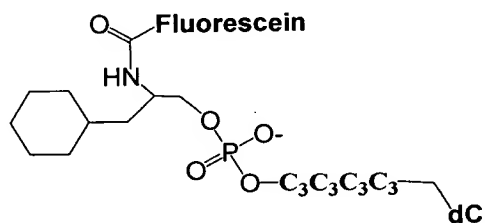
ACLA075



ACLA076



ACLA077



ACLA078

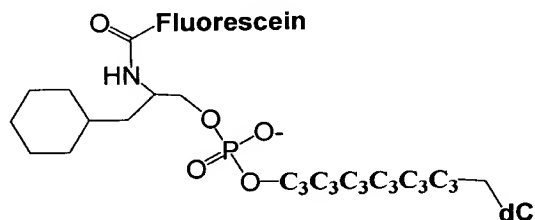
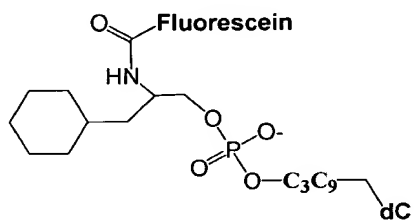
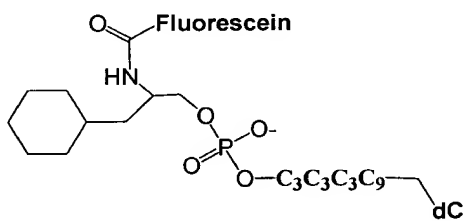


Fig. 17G

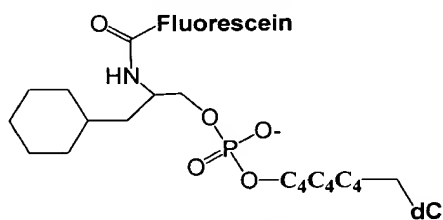
ACLA079



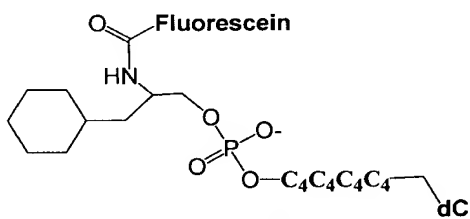
ACLA080



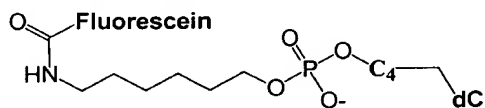
ACLA081



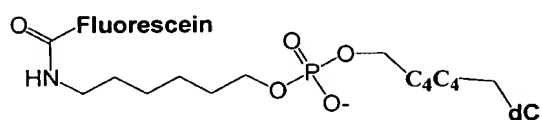
ACLA082



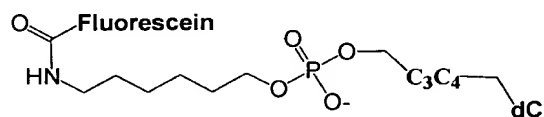
ACLA083



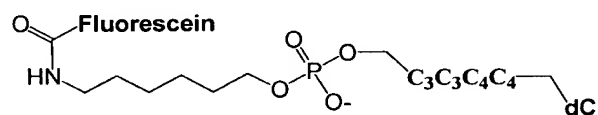
ACLA084



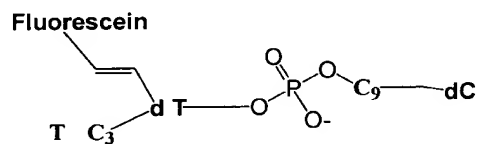
ACLA085



ACLA086



ACLA087



ACLA088

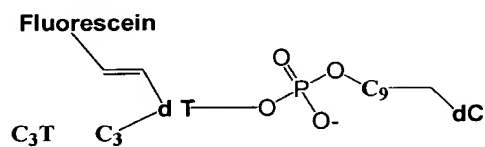
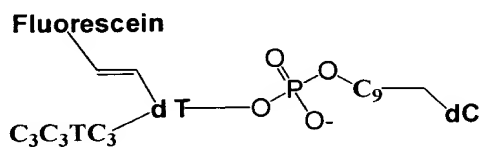
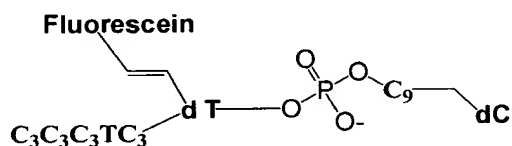


Fig. 17H

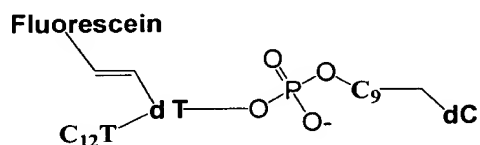
ACLA089



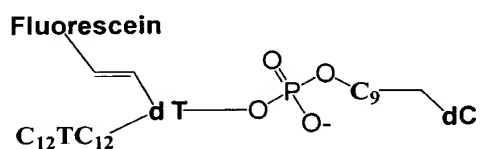
ACLA090



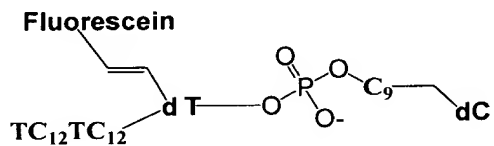
ACLA091



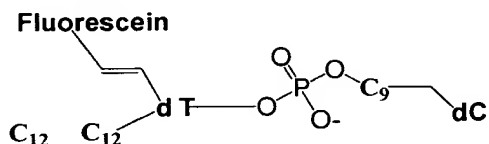
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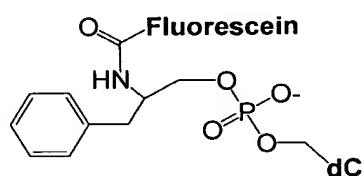
ACLA093



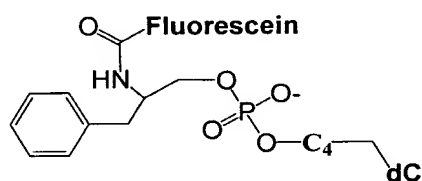
ACLA094



ACLA095



ACLA096



ACLA097

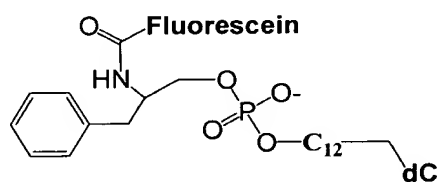


Fig. 17I

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

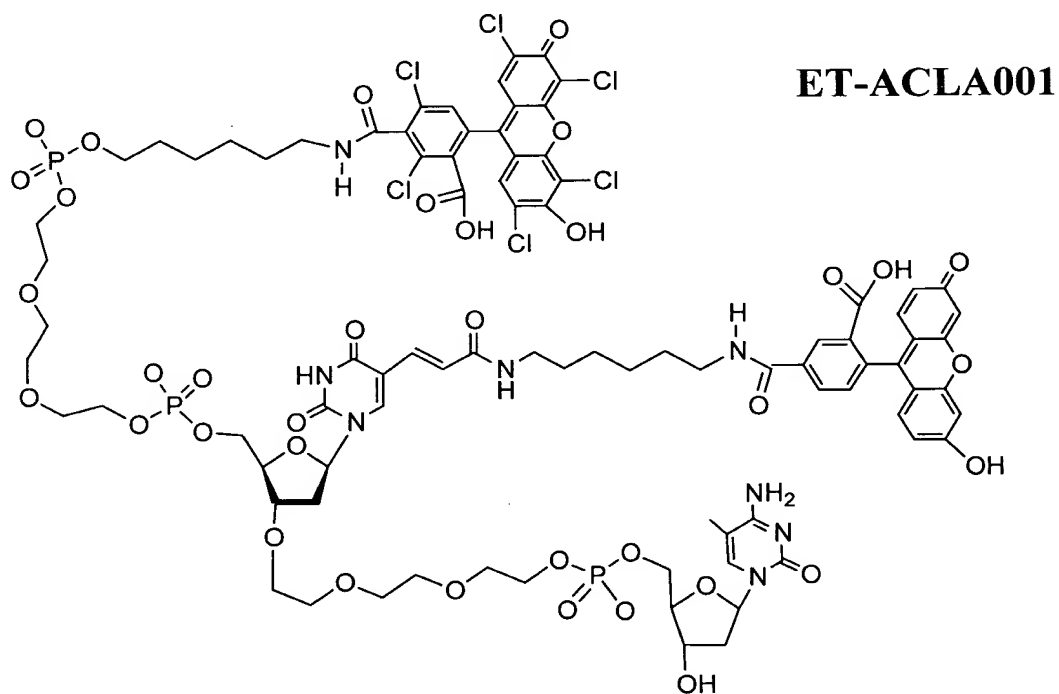


Fig. 17J

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

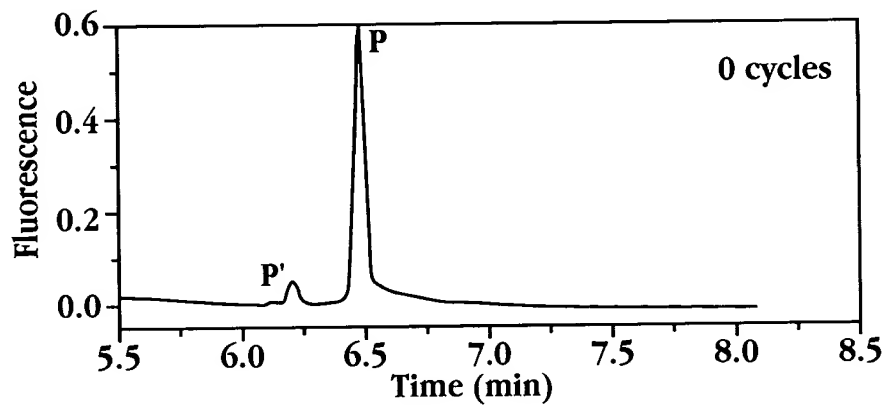


Fig. 18A

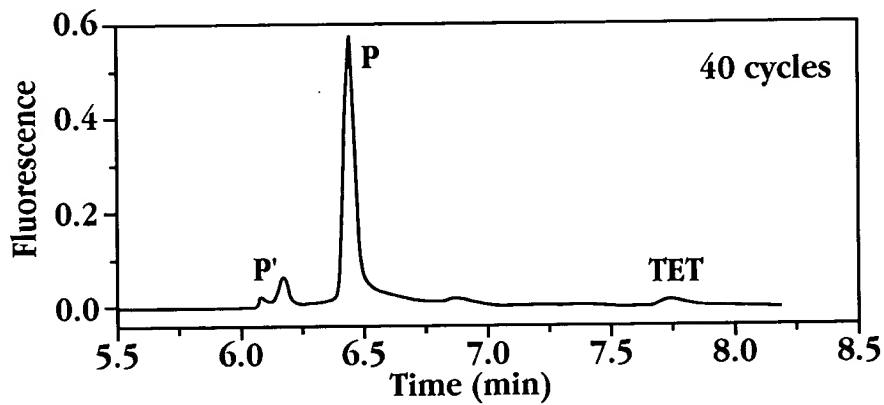


Fig. 18B

APPROVED	O. G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

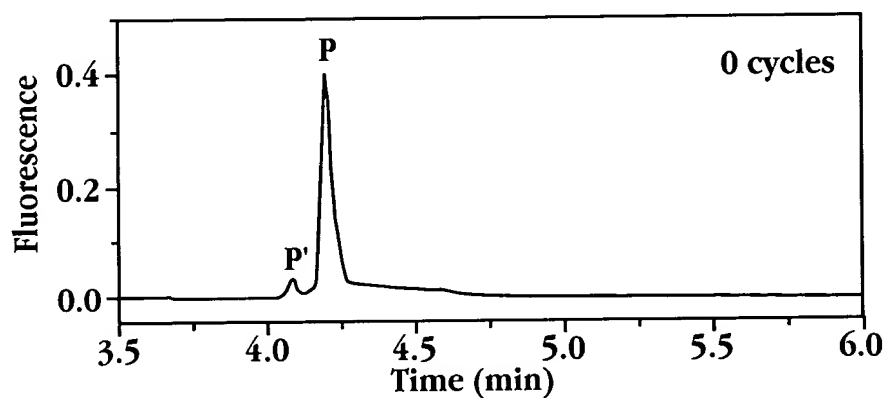


Fig. 19A

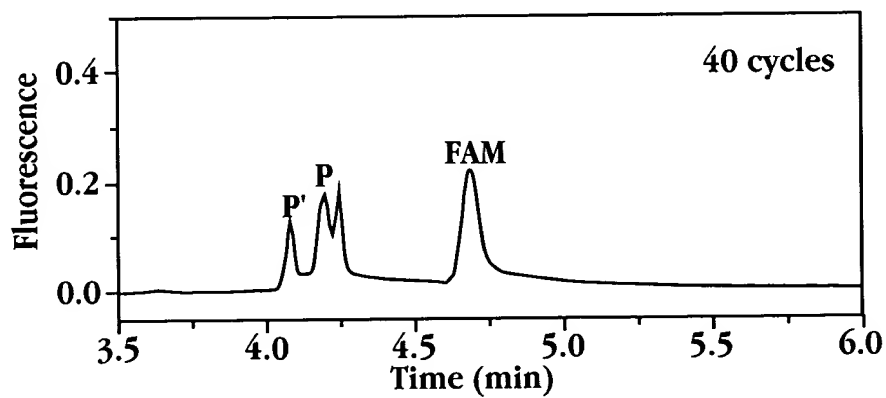


Fig. 19B

APPROVED	O G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

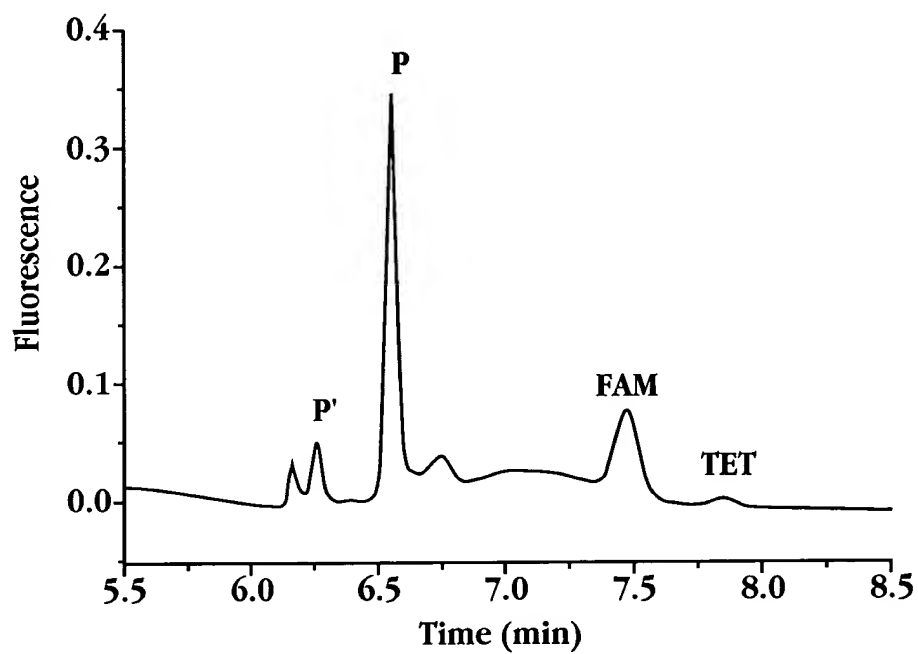


Fig. 20

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

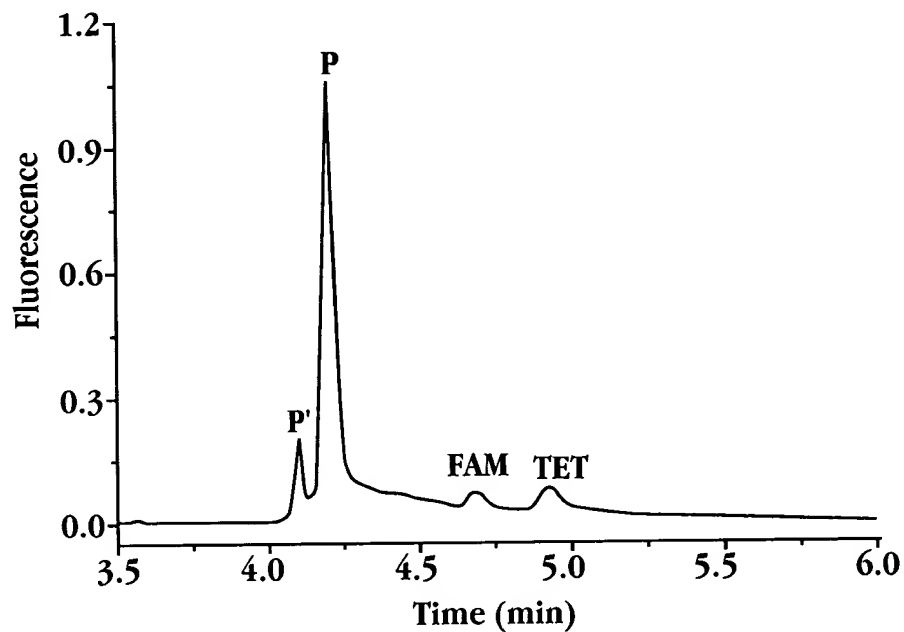


Fig. 21

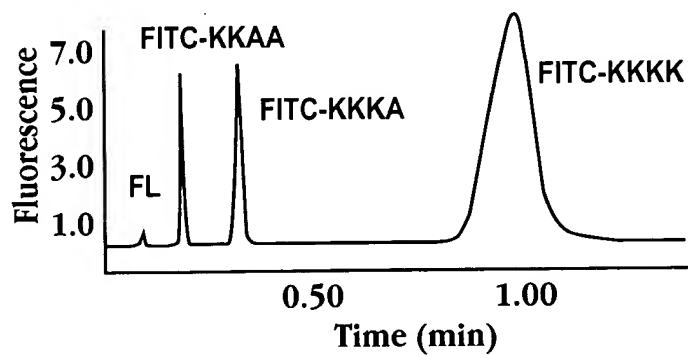


Fig. 22

APPROVED	O G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

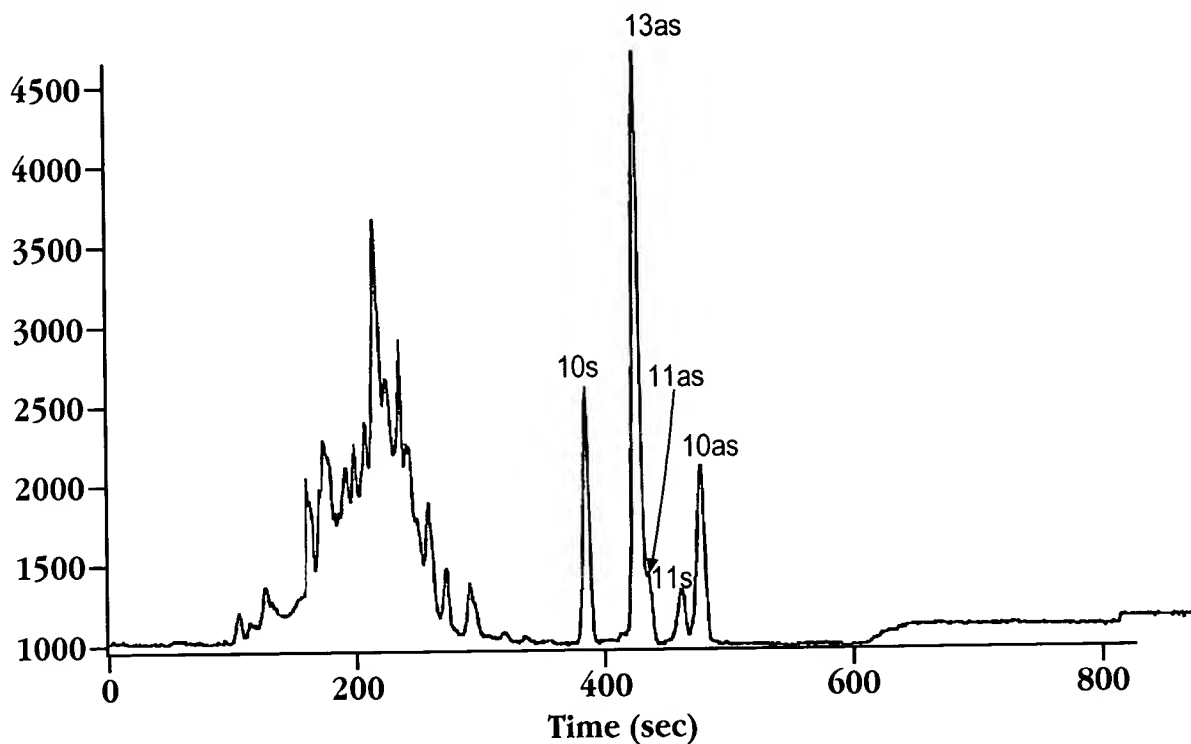


Fig. 23A

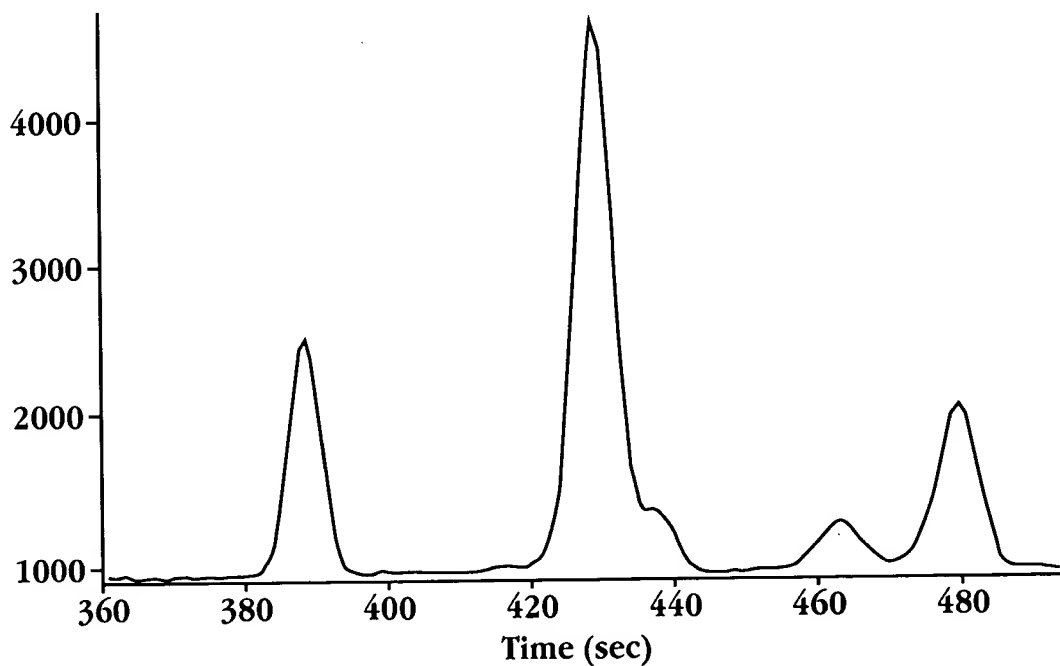


Fig. 23B

APPROVED	O G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

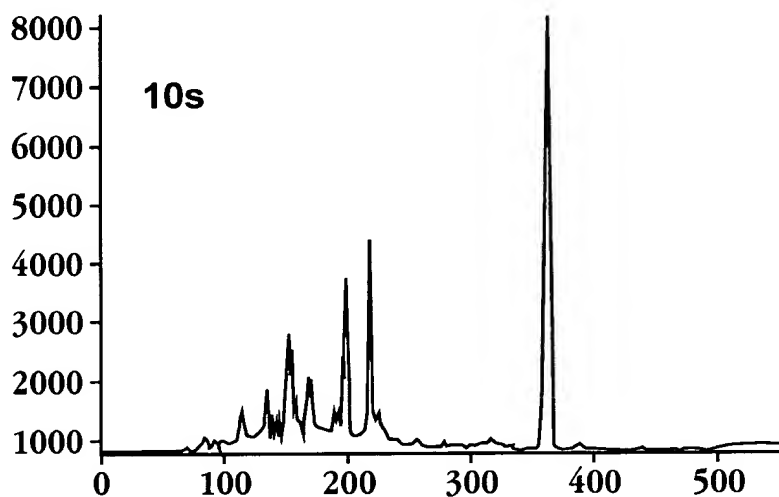


Fig. 23C

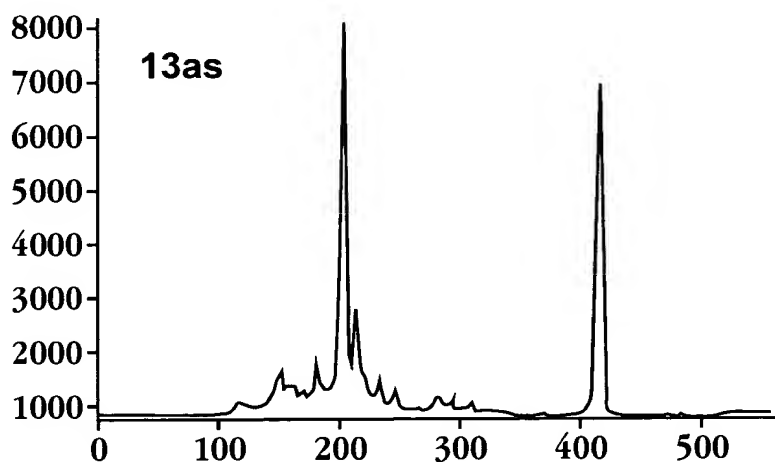


Fig. 23D

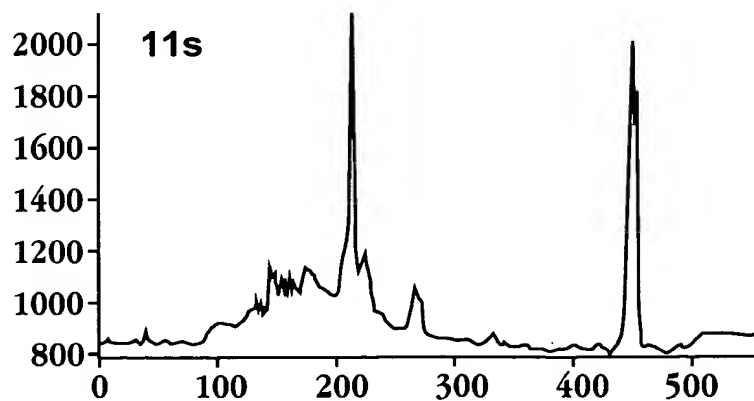


Fig. 23E

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

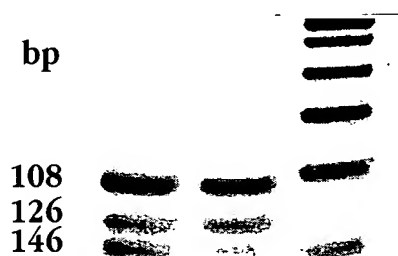


Fig. 23F

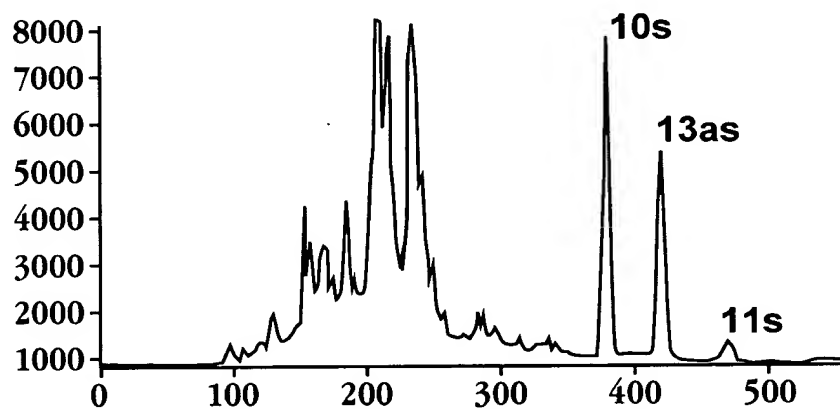


Fig. 23G

APPROVED	O G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

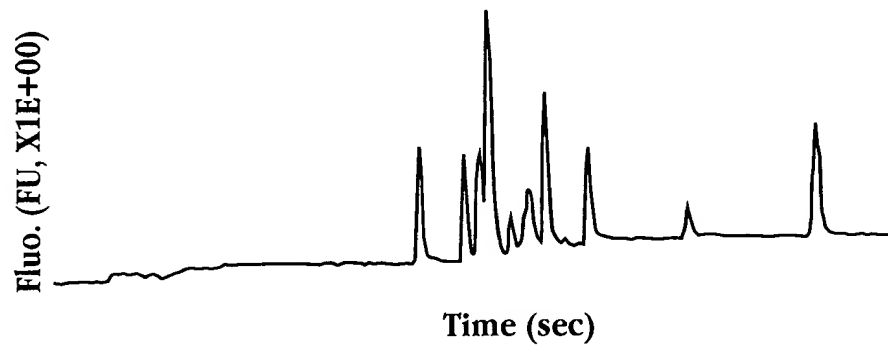


Fig. 24

APPROVED	O. G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

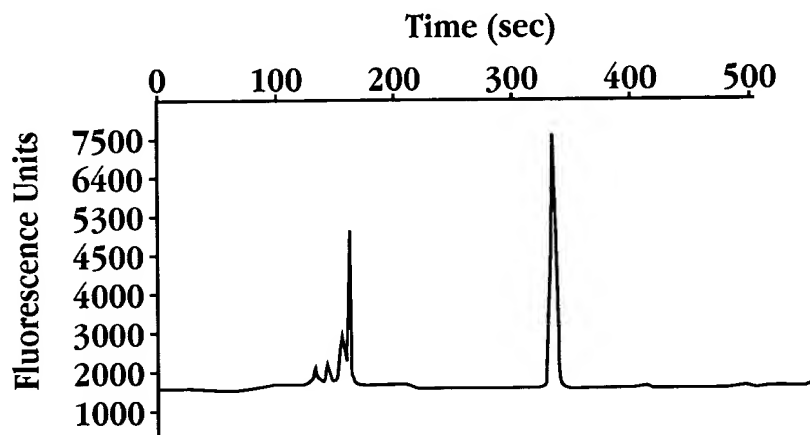


Fig. 25A

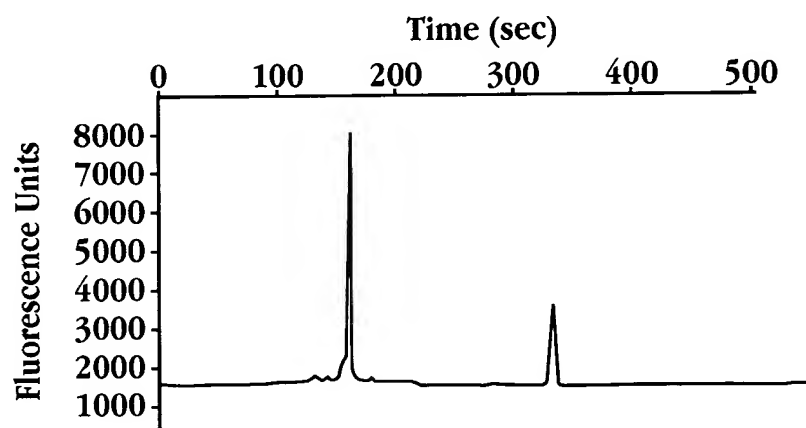


Fig. 25B

APPROVED	O G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

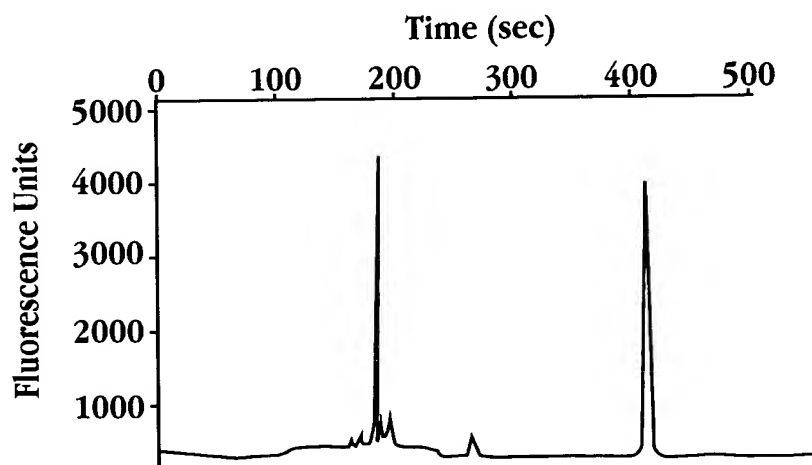


Fig. 25C

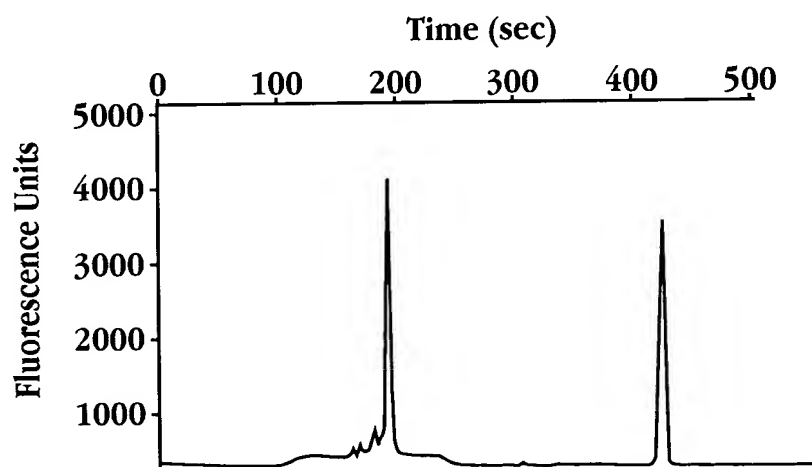


Fig. 25D

APPROVED	O G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

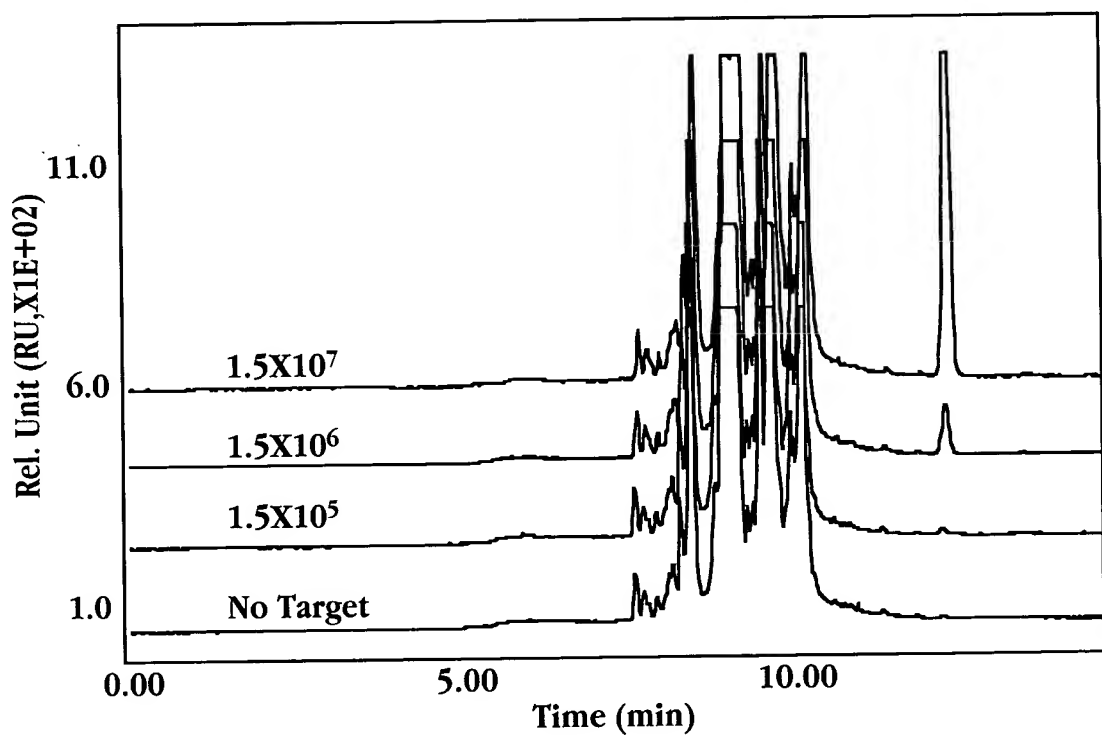


Fig. 26

APPROVED	O. G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

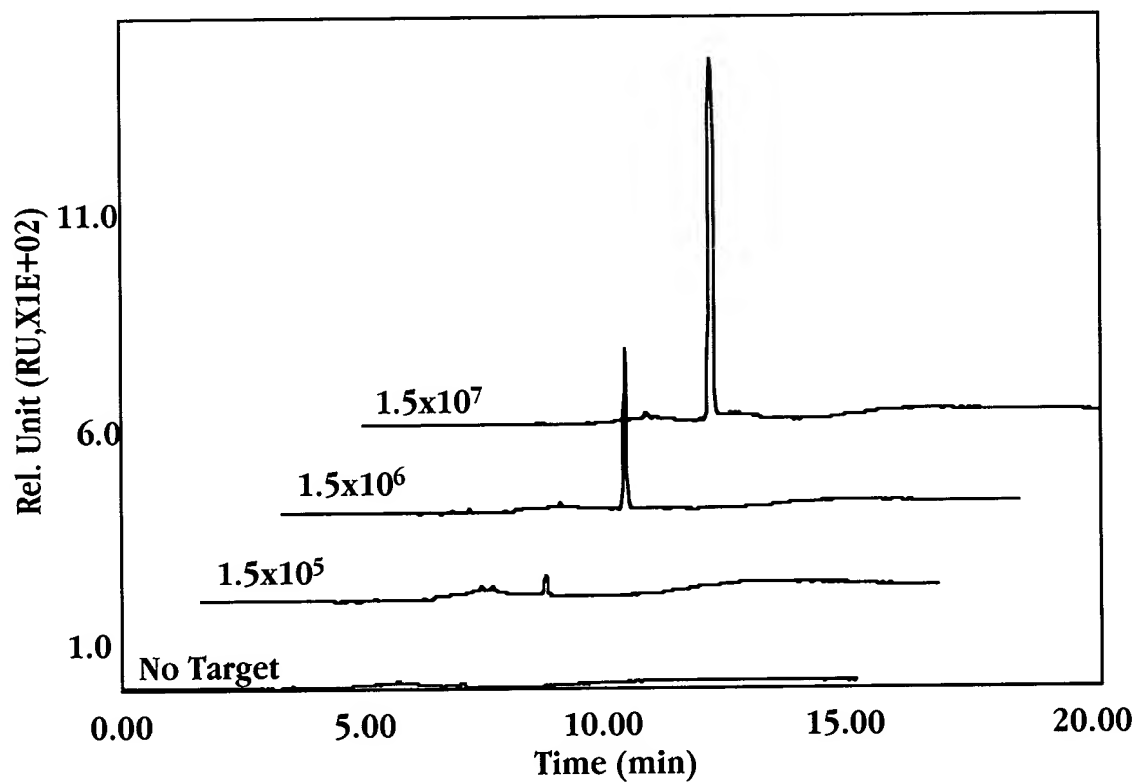


Fig. 27

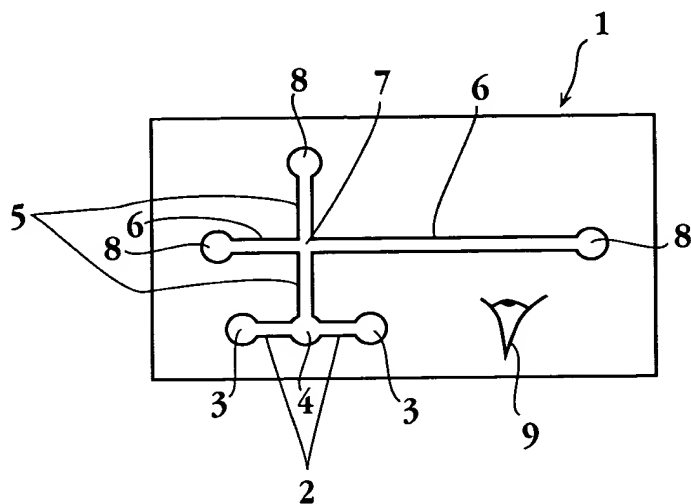


Fig. 28A

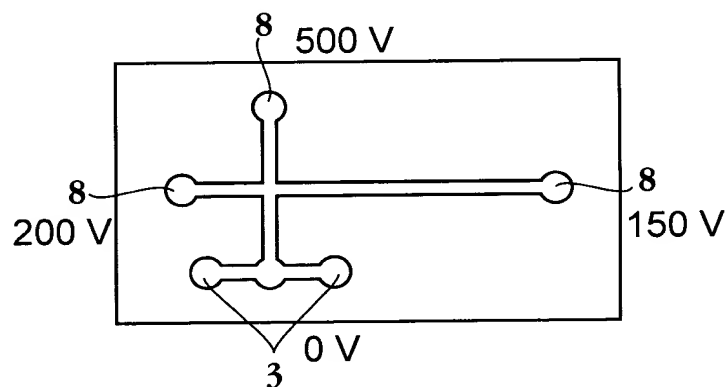


Fig. 28B

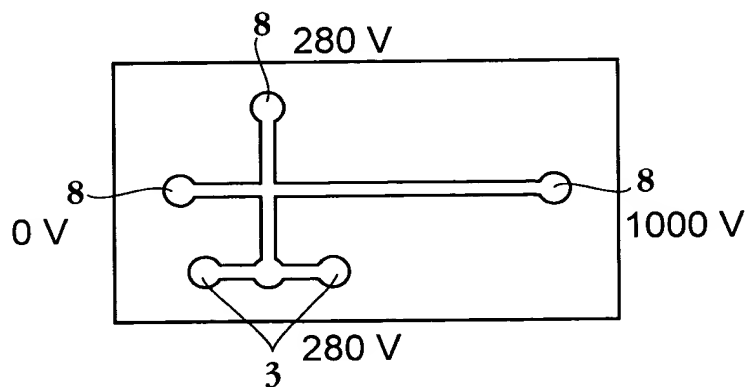


Fig. 28C

APPROVED	O. G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

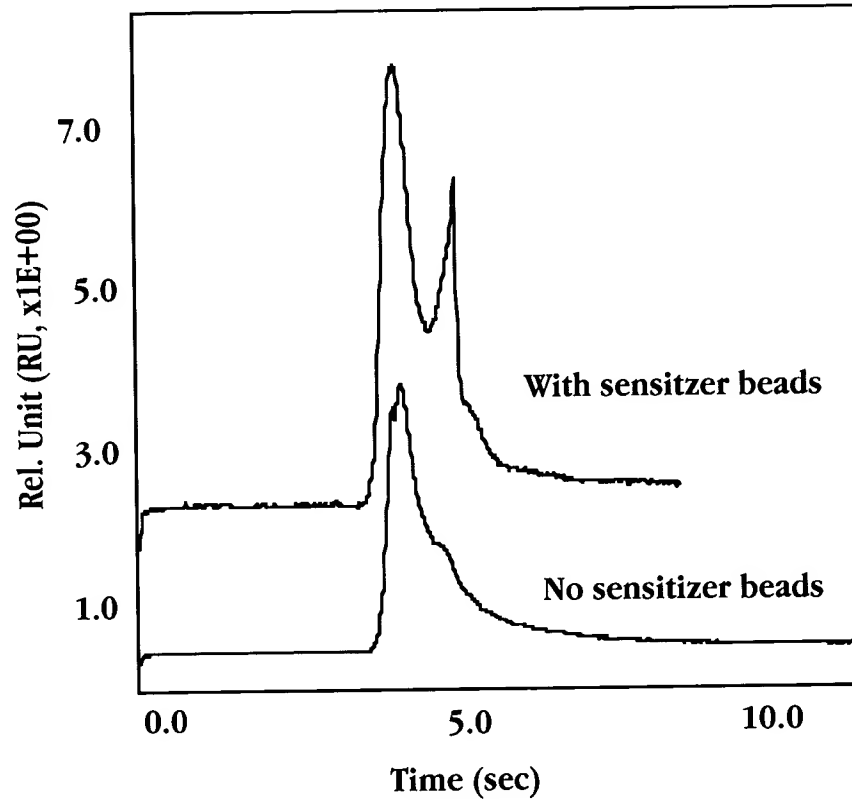


Fig. 29

APPROVED	O. G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

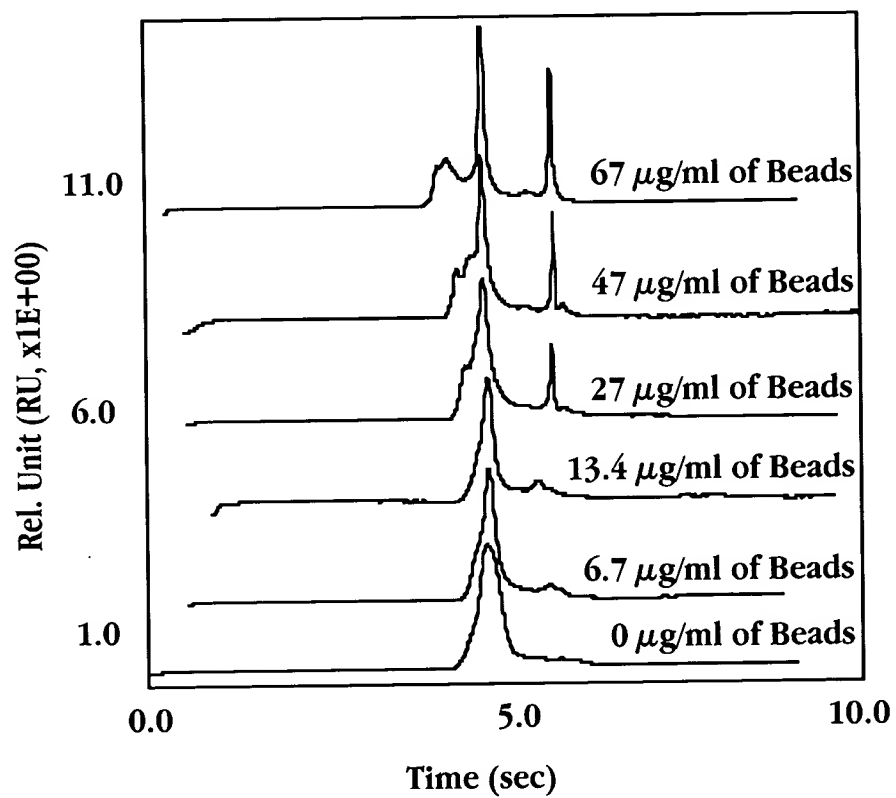


Fig. 30

APPROVED	O. G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

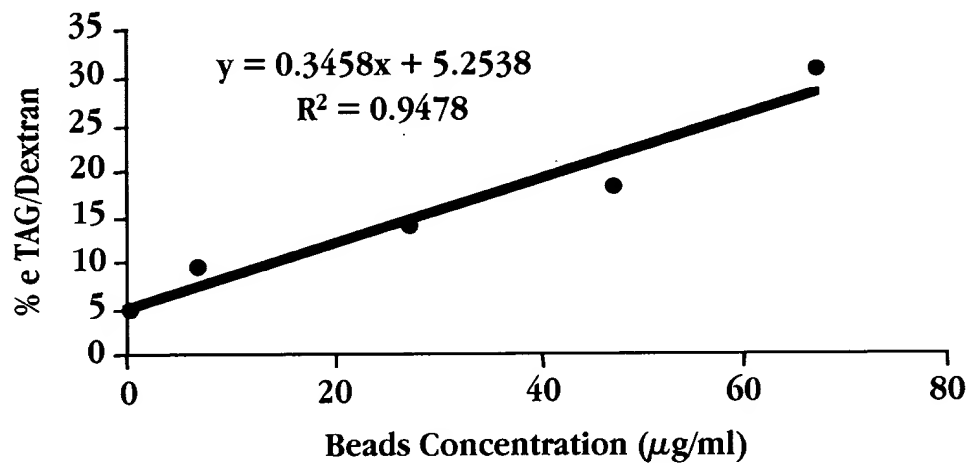


Fig. 31

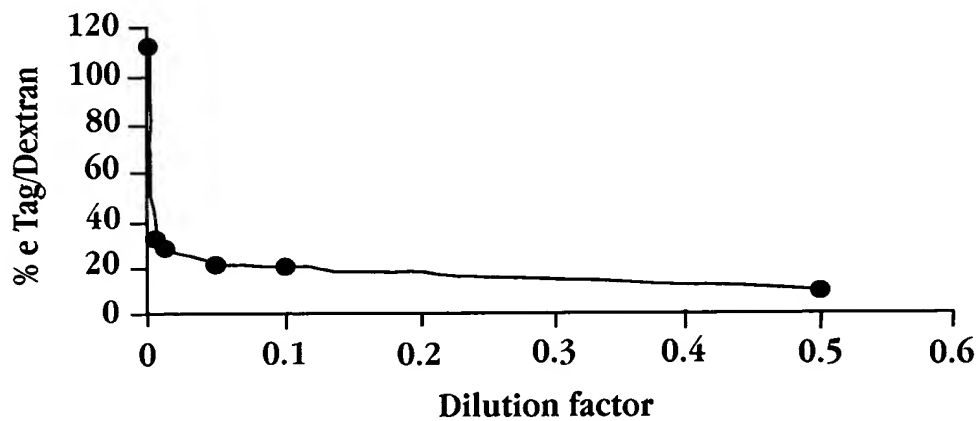


Fig. 32

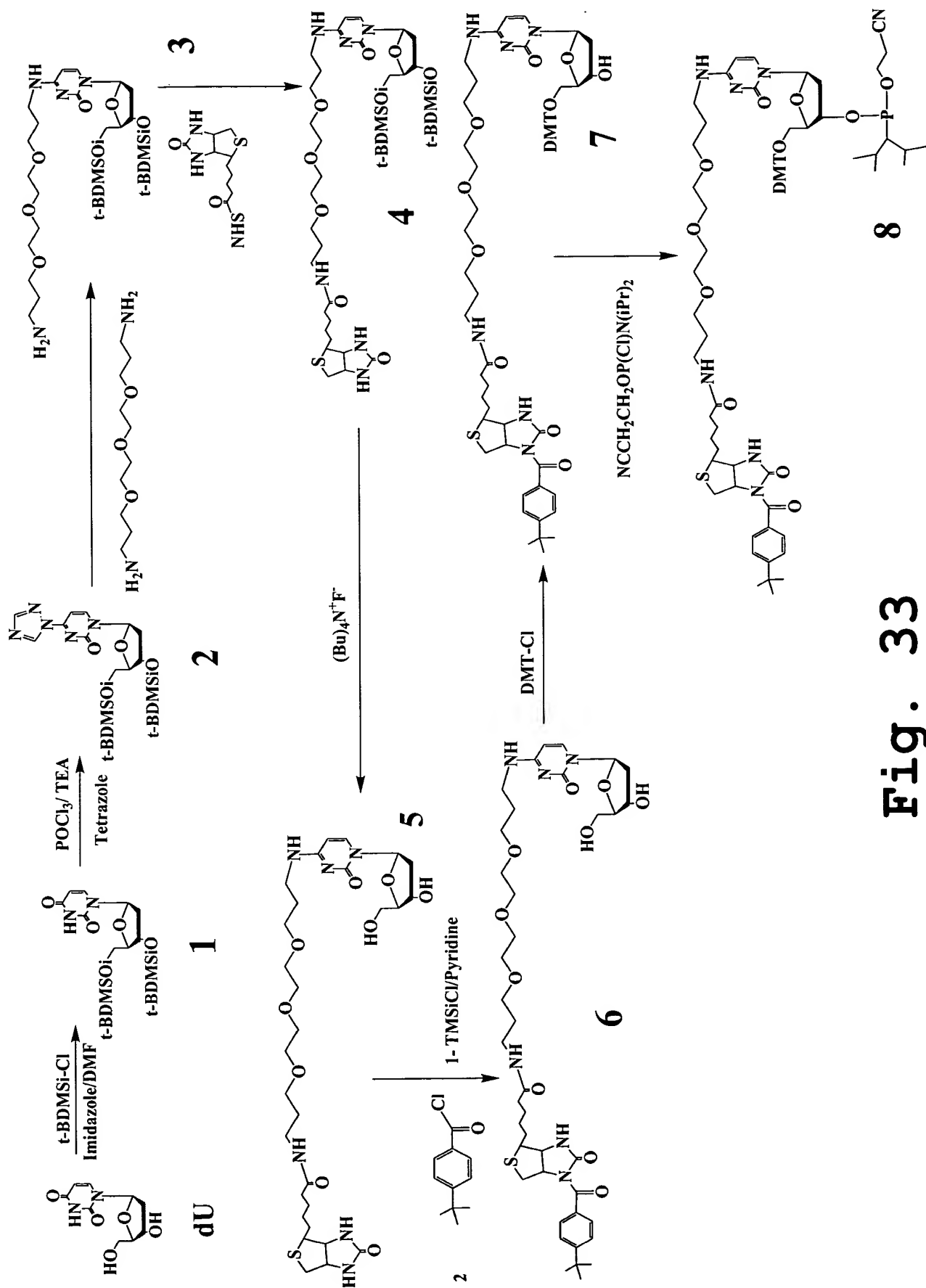


Fig. 33

